## AMENDMENTS TO THE UNIFORM BUILDING CODE

City of Tempe Development Services Dept./ Building Safety Division P.O. Box 5002 Tempe, AZ 85280 (480) 350-8341



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#### THE TEMPE BUILDING CODE

The Tempe Building Code consists of the Uniform Building Code (U.B.C.) 1994 Edition, Volumes I and II, and the City of Tempe Amendments to the 1994 U.B.C. contained in Section 8-300, Chapter 8 of the Tempe City Code, printed herein.

The requirements contained herein shall take precedence over any conflicting requirements in the Uniform Building Code. Identification is by corresponding Uniform Building Code, Chapter and Section. <u>Amendments are underlined for identification.</u>

Sec. 101. Title, purpose and scope.

[§ 101.3 is hereby amended by adding Exceptions as follows:]

**EXCEPTIONS:** The provisions of this Article shall not apply to any of the following:

- 1. Radio and television antennae towers or light standards not exceeding 35 feet in height.
- 2. Amusement devices and structures, including merry-go-rounds, ferris wheels, rotating conveyances, slides, similar devices and accessory structures whose use is necessary for the operation of such amusement devices and structures; any accessory structure included in the provisions of this sub-section shall be limited to a cover or roof over each device, but shall not include any storage building or detached structure which is not an integral part of the device.
- 3. Storage Tanks resting in or upon the ground and if installed in accordance with the requirements of the Fire Department.
- 4. Works of art not over 6 feet (1829 mm) in height and their foundation and supporting structure, provided that no part of which is intended to be occupied or used as shelter.

### Sec. 102. Unsafe buildings or structures.

### [§ 102 is hereby amended as follows:]

<u>102.1 General.</u> All buildings or structures which are structurally unsafe or not provided with adequate egress, or which constitute a fire hazard or are otherwise dangerous to human life, <u>or which in relation to existing use constitutes</u> a hazard to safety or health, or public welfare, by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, or abandonment, <u>as specified in this code or any other effective ordinance</u>, are for the purpose of this section, unsafe <u>buildings</u>. All such unsafe buildings are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedure <u>specified in Sections 102.2</u>, 102.3, 102.4 and 102.5.

- 102.1.2 Unsafe buildings appendages. Parapet walls, cornices, spires, towers, tanks, statuary and other appendages or structural members which are supported by, attached to, or a part of a building and which are in a deteriorated condition or are otherwise unable to sustain the design loads which are specified in this code, are hereby designated as unsafe building appendages. All such unsafe building appendages are public nuisances and shall be abated in accordance with Section 102 of this code.
- 102.2 Notice to owner. The building official shall examine or cause to be examined every building or structure or portion thereof reported as dangerous or damaged and, if such is found to be an unsafe building as defined in this section, the building official shall give to the owner of such building or structure written notice stating the defects thereof. This notice may require the owner or person in charge of the building premises, within 48 hours, to commence either the required repairs or improvements or demolition and removal of the building or structure or portions thereof, and all such work shall be completed within 90 days from the date of notice, unless otherwise stipulated by the building official. If necessary, such notice also shall require the building, structure or portion thereof to be vacated forthwith and not reoccupied until the required repairs and improvements are completed, inspected, and approved by the building official.

Proper service of such notice shall be by personal service upon the owner of record, if he shall be found within the city limits. If he is not found within the city limits, such service may be made upon said owner by registered mail or certified mail, the designated period within which said owner or person in charge is required to comply with the order of the building official shall begin as of the date he receives such notice.

- 102.3 Post of signs. The building official shall cause to be posted at each entrance to such building a notice to read: DO NOT ENTER, UNSAFE TO OCCUPY.

  Development Services Department, City of Tempe. Such notice shall remain posted until the required repairs, demolition or removal are completed. Such notice shall not be removed without written permission of the building official and no person shall enter the building except for the purpose of making the required repairs or of demolishing the building.
- 102.4 Right to demolish. In case the owner shall fail, neglect or refuse to comply with the notice to repair, rehabilitate, or to demolish and remove said building or structure or portion thereof, the City Council may order the owner of the building prosecuted as a violator of the provisions of this code and may order the building official to proceed with the work specified in such notice.
- 102.5 Costs. Costs incurred under Section 102.4 shall be paid out of the City
  Treasury and shall be charged to the owner and collected by the Management Services
  Director in the manner specified in Chapter 21, Tempe City Code.

Sec. 105. Board of Appeals.

[§ 105 is hereby repealed]

Sec. 106. Permits.

[§ 106.2 is hereby amended by adding Item 12 as follows:]

12. Roof covering.

[§ 106.3.3 is hereby amended as follows:]

**106.3.3 Information on plans and specifications.** Plans and specifications shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations.

Plans for buildings of other than Group R, Division 3 and Group U Occupancies shall indicate how required structural and fire-resistive integrity will be maintained where penetrations will be made for electrical, mechanical, plumbing and communications conduits, pipes and similar systems.

### [§ 106.3.4.2 is hereby repealed.]

### [§ 106.3.5 is hereby amended as follows:]

106.3.5 Inspection and observation program. When special inspection is required by Section 1701, the architect or engineer of record shall prepare an inspection program which shall be submitted to the building official for approval prior to issuance of the building permit. The inspection program shall designate the portions of the work that require special inspection and the name or names of the individuals or firms who are to perform the special inspections, and indicate the duties of the special inspectors.

The special inspector shall be employed by the owner, the engineer or architect of record, or an agent of the owner, but not the contractor or any other person responsible for the work.

When structural observation is required by Section 1702, the inspection program shall name the individuals or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur.

The inspection program <u>may</u> include samples of inspection reports and provide time limits for submission of reports.

### [§ 106.4.4 is hereby amended as follows:]

**106.4.4.1 Work not commenced.** Every permit issued under the provision of this code shall be valid for a period of one year from the date of issuance provided, however, that any permit shall expire if work authorized by such permit is not commenced and an approved inspection obtained within 180 days from the date of issuance. An approved inspection shall be an inspection that is requested and approved pursuant to Section 108.

Before work can be <u>commenced on a structure for which the permit has expired</u>, a new permit shall be obtained and the fee therefore shall be <u>based on the total valuation of the structure</u>.

**EXCEPTION:** Where no work has commenced within 180 days from the date of issuance, the permit may be reinstated, without a fee upon written request of the owner or owner's agent, provided work commences and an approved inspection is obtained within one year of the original date of issuance.

<u>106.4.4.2 Work commenced.</u> Every permit issued under the provisions of this code shall be valid for a period of one year from the date of issuance, provided, however, that any permit shall expire <u>180 days after the last approved inspection</u>. An approved inspection shall be an inspection that is requested and approved pursuant to Section <u>108</u>.

Before work can be <u>continued or resumed on a structure for which the permit has expired</u>, a new permit shall be obtained and the fee thereof shall be <u>determined by the building official on the basis of the valuation of the uncompleted portion of the work from the last approved inspection.</u>

**EXCEPTIONS:** 1. A permit shall not expire if the time between approved inspection does not exceed 180 days.

2. If an approved inspection is not obtained within 180 days of the last approved inspection, the permit may be reinstated once, without a fee upon written request of the owner or owner's agent provided that no substantial changes have been made in the original plans and specifications for such work and provided further that an approved inspection is obtained within one year of the last approved inspection.

### [§ 106.4.6 is hereby added as follows:]

106.4.6 Unfinished buildings or structures. Whenever work has commenced on a building or structure for which a permit has been issued, and said permit has expired pursuant to Section 106.4.4, the owner of the property upon which structure is located, or other person or agent in control of said property, upon receipt of notice in writing from the Department so to do, shall within 30 days from the date of such written notice, obtain a new permit to complete the work and diligently pursue the work to completion, or within said 30 days, obtain a demolition permit and shall remove or demolish the building or structure within 120 days from the date of written notice.

Notwithstanding the provisions of Section 106.4.4 and this section, whenever work on any building, structure, addition, alteration, appendage or repair has commenced, the exterior walls and roof shall be completed in accordance with the approved plans including but not limited to roofing, fenestration and finish materials including paint, within two years of commencing construction. In the absence of evidence to the contrary, the date of the first inspection request shall establish the date that construction commenced.

The provisions of this section shall apply to all permits issued on and after the effective date of this ordinance and permits issued or reinstated pursuant to Section 106.4.4.

Such building, structure, addition, alteration, appendage or repair not in compliance with this section is subject to the enforcement and abatement procedures of Chapter 21, Tempe City Code as a public nuisance.

### [§ 106.5 is hereby added as follows:]

106.5 Illegal building. Every building or portion thereof constructed without a building permit where required by this code, shall be made to conform to the provisions of this code or shall be demolished.

### Sec. 107. Fees.

### [§ 107.2 is hereby amended as follows:]

**107.2 Permit Fees**. The fee for each permit shall be as set forth in Table 1-A.

The determination of value or valuation under any of the provisions of this code shall be made by the building official. The value to be used in computing the building permit and building plan review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and any other permanent equipment.

Shade structures on Public Schools are exempt from Permit Fees. (4)

### [§ 107.3 is hereby amended as follows:]

**107.3 Plan review fees.** When submittal documents are required by Section 106.3.2, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fee shall be 65 percent of the building permit fee as shown in Table 1-A.

The plan review fees specified in this subsection are separate fees from the permit fees specified in Section 107.2 and are in addition to the permit fees.

When submittal documents are incomplete or changed so as to require additional plan review, an additional plan review fee <u>may</u> be charged at the rate shown in Table 1-A.

Expedited plan review fees shall be equal to the amount of the plan review fees required by this Section. Expedited plan review fees are separate from the plan review and permit fees required by this section and are in addition to those fees.

Shade Structures on Public Schools are exempt from plan review fees. (4)

### [§ 107.6 is hereby amended as follows:]

**107.6** Fee refunds. The building official may authorize the refunding of any fee paid hereunder which was erroneously paid or collected.

The building official may authorize the refunding of <u>that portion of the permit fee in excess of the fee for issuance when no inspection has been done for which a permit has been issued in accordance with this code.</u>

The building official may authorize the refunding of <u>that portion of the plan review</u> <u>fee in excess of the fee for issuance</u> when the application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize the refunding of any fee paid except upon written application filed by the original permittee not later than 180 days after the date of fee payment.

Sec. 109. Certificates of occupancy.

[Item 3 to § 109.3 is hereby repealed]

Sec. 110. Registered industrial plant.

[§ 110 is hereby added as follows:]

- 110.1 Definition. For the purpose of this code, a Registered Industrial Plant is a person, firm, corporation or political entity engaged in manufacturing, processing or service which requires specialized buildings, utilities and equipment to the extent that the plant maintains full-time personnel for the operation and maintenance of such buildings, utilities and equipment and when such plant has complied with all the provisions of this section.
- 110.2 Qualifications. In addition to meeting the general definitions above, a Registered Industrial Plant shall have in its employ an architect or engineer registered in the State of Arizona who shall be responsible for complying with the substantive provisions of this code.
- 110.3 Scope. Registered Industrial Plants are exempt from the requirements of Section 106.1 and 106.2. Permits, for work on existing buildings, structures and utilities accessory thereto that does not increase the floor area or height. This exemption is limited to buildings owned or leased by the Registered Industrial Plant and under the direct control of the holder of the registration. Said buildings or structures quality for this exemption after the Certificate of Occupancy has been issued for the structure and all interior improvements covering the initial plant occupancy. This exemption shall not be construed to waive any requirement of this code, and all applicable requirements shall be complied with. The Plant registration is not transferrable.
- 110.4 Application. To obtain registration, the applicant shall first file an application therefor in writing on a form furnished by the building official for that purpose. Every such application shall:
  - 1. Specify the name of the plant for which registration is requested.
  - 2. Describe the property to be included under registration by address and other description that will readily identify and definitely locate the buildings and structures to be included under the registration.
  - 3. The name of the individual who has the authority to act on behalf of the plant owner(s).
  - 4. The name of the registered architect or engineer who will be responsible for the work done under the registration.

Appropriate action shall be taken by the building official on such application and the applicant shall be notified accordingly.

If the application is disapproved, the applicant may appeal from such decision to the Building Code Advisory Board of Appeals in the manner provided in Section 8-221 through 8-223, Tempe City Code.

- 110.5 Registration fees and renewal. Every applicant for registration shall pay a fee of \$500 at the time of filing. Said fee shall be refunded if the application is disapproved. Registrations shall expire on December 31 of each year. Registration may be renewed each year by payment of the fee on or before December 31. Any work performed after expiration without permits and inspections required by this chapter shall be a violation of this code.
- 110.6 Validity of registration. Registration shall be valid only as long as the named architect or engineer remains in the employ of the Registered Industrial Plant in an active and full-time capacity. If the registered architect or engineer should leave the employ of the registrant, registration is suspended until another registered architect or engineer is assigned the responsibility for work done under the registration. The Registered Industrial Plant shall notify the building official immediately and shall call for inspection of any work in progress in accordance with Section 108. Before any new work commences while registration is invalid or suspended, permits and inspections shall be obtained pursuant to this chapter.
- 110.7 Revocation of registration. The building official may suspend or revoke a registration when the Registered Industrial Plant fails to comply with any of the registration responsibilities or for violation of any provision of this code.

<u>Procedure.</u> When the building official deems that the registration shall be suspended or revoked, the procedure shall be as follows:

- 1. The Registered Industrial Plant shall be notified in writing by certified mail at least seven days prior to suspension or revocation.
- 2. Upon receipt of the notice, the Registered Industrial Plant may request a hearing. Such request shall be in writing to the building official within seven days of receipt of notice.
- 3. If a hearing is requested by the Registered Industrial Plant, the building official shall set a time, date and place and so notify the registrant.
- 4. When a hearing is conducted, the Registered Industrial Plant and other interested parties may be in attendance. Upon completion of the hearing, the building official shall take all evidence submitted under advisement and shall notify the Registered Industrial Plant of his findings in writing by certified mail.
- 5. If the decision rendered by the building official is adverse to the Registered Industrial Plant, the Registered Industrial Plant may appeal from such decision to the Building Code Advisory Board of Appeals in the manner provided in Section 8-21 through 8-24, Tempe City Code.
- 110.8 Work report and inspections. A report of all work done under the plant registration shall be prepared by the registered architect or engineer and submitted monthly to the building official together with any plans or working drawings for alterations to buildings or utilities covered by the code. Plans submitted pursuant to this section may be reviewed and inspection of the work conducted by the building official or authorized representatives as set forth in this code, provided, however, that work may proceed without inspection pursuant to this section. The Registered Industrial Plant may request a plan review or inspection of any work performed under this section without payment of additional fees.

**EXCEPTIONS:** Plans, working drawings and work reports need not be submitted for:

- 1. <u>Installation of machines, equipment and processes related to production or testing;</u>
  - <u>2.</u> Additions, alteration and repair of electrical, plumbing or mechanical systems;
  - 3. Partitions, rails, counters and similar space dividers not exceeding five feet nine inches in height above the floor.

### Table 1-A -- Building permit fees.

### [Table 1-A is hereby amended as follows:]

## **Table 1-A --Building Permit Fees** (5)

FOR ISSUING EACH PERMIT	\$10.00			
IN ADDITION, FOR:				
TOTAL VALUATION	FEE			
\$1.00 TO \$500.00	\$23.50			
\$501.00 TO \$2,000.00	\$23.50 for the first \$500.00 plus \$3.05 for each additional \$100.00 or fraction thereof, to and including \$2,000.00			
\$2,001.00 to \$25,000.00	\$69.25 for the first \$2,000.00 plus \$14.00 for each additional \$1,000.00 or fraction thereof, to and including \$25,000.00			
\$25,001.00 to \$50,000.00	\$391.75 for the first \$25,000.00 plus \$10.10 for each additional \$1,000.00 or fraction thereof, to and including \$50,000.00			
\$50,001.00 to \$100,000.00	\$643.75 for the first \$50,000.00 plus \$7.00 for each additional \$1,000.00 or fraction thereof, to and including \$100,000.00			
\$100,001.00 to \$500,000.00	\$993.75 for the first \$100,000.00 plus \$5.60 for each additional \$1,000.00 or fraction thereof, to and including \$500,000.00			
\$500,001.00 to \$1,000,000.00	\$3,233.75 for the first \$500,000.00 plus \$4.75 for each additional \$1,000.00 or fraction thereof, to and including \$1,000,000.00			
\$1,000,001.00 and up	\$5,608.75 for the first \$1,000,000.00 plus \$3.65 for each additional \$1,000.00 or fraction thereof			
Other Inspections and Fees:  1. Inspections outside of normal business hours:\$60.00 per hour (minimum charge - two hours)  2. Reinspection fees assessed under provisions of Section 108.8:\$45.00 per hour (minimum charge: one-half hour)  4. Additional plan review required by changes, additions or revisions to approved plans:\$60.00 per hour (minimum charge - one-half hour)				

### Sec. 202-A. Definitions - A.

 $[\S~202\text{-}A~is~hereby~amended~by~adding~the~definition~of~adult~care~home~as~follows:]$ 

Adult care home is a residential care facility licensed by the State pursuant to A.R.S. §36-448.

## [ $\S$ 202-A is hereby amended by amending the definition of "approved" as follows:]

**Approved** <u>is</u> approval by the building official as the result of investigation and test, or by reason of accepted principals or tests by recognized authorities, <u>or compliance as</u> defined in § 204-C.

Sec. 204-C. Definitions - C.

## [§ 204-C is hereby amended by adding the definition of "compliance" as follows:]

Compliance is conformance to the applicable requirements of this code and other pertinent laws and ordinances so far as ascertained by or made known to the building official by inspection or by review of plans, specifications and other data to the extent of the building official's resources. Plan review and inspection services are provided to help minimize instances of code violations. Responsibility for conformance of a building or structure is the responsibility of the owner and the owner's agents.

## [§ 204-C is hereby amended by amending the definition of "congregate residence" as follows:]

**Congregate residence** is any building or portion thereof which contains facilities for living, sleeping and sanitation, as required by this code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate residence may be a shelter, convent, monastery, dormitory, fraternity, or sorority house but does not include jails, hospitals, nursing homes, hotels, lodging houses <u>or adult care homes for more than 5 residents or clients</u>.

Sec. 205-D. Definitions - D.

[§ 205-D is hereby amended by adding the definition of dormitory as follows:]

**Dormitory** is a guest room with an occupant load greater than two.

## [§ 205-D is hereby amended by amending the definition of "draft stop" as follows:]

**Draft stop** is a material, device or construction installed to restrict the movement of air within open spaces of concealed areas of building components such as floor-ceiling assemblies, roof-ceiling assemblies and attics.

Sec. 206-E. Definitions - E.

[§ 206-E is hereby amended by repealing the definition of elevator code.]

### Sec. 208-G. Definitions - G.

## [ $\S$ 208-G is hereby amended by amending the definition of "guest room" as follows:]

**Guest room** is any room or rooms used or intended to be used by a guest for sleeping purposes. Every 100 square feet (9.3 m<sup>2</sup>) of floor area in a <u>sleeping room or area</u> shall be considered to be a guest room.

### Sec. 220-S. Definitions - S.

### [§ 220-S is hereby amended by amending the definition of "story" as follows:]

**Story** is that portion of a building included between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. If the finish floor level directly above a <u>basement</u> or unused underfloor space is more than two feet above grade as defined herein <u>except at exits</u>, such <u>basement</u> or unused underfloor space shall be considered a story.

### Sec. 303. Requirements for Group A Occupancies.

### [§ 303.2.1 is hereby amended as follows:]

**303.2.1 General.** Unless otherwise specified in this section, buildings or parts of buildings classed in Group A Occupancy because of the use or character of the occupancy shall be limited to the types of construction set forth in Tables No. 5-B and shall not exceed, in area or height, the limits specified in Sections 504, 505 and 506.

<u>Group A</u> Occupancies located over usable space shall be separated from such space by a one-hour, fire-resistive <u>occupancy separation</u>.

### [§ 303.2.2.2 is hereby amended as follows:]

**303.2.2.2. Division 3 provisions.** Division 3 Occupancies located in a basement or above the first story shall be of not less than one-hour fire-resistive construction.

<u>Division 3 Occupancy drinking or dining establishments shall be of not less than one-hour fire-resistive construction, Type IV construction or provided with an automatic fire extinguishing system throughout.</u>

For Division 3 Occupancies with a Group S, Division 3 parking garage in the basement or first floor, see Section 311.2.2.

### Sec. 307. Requirements for Group H Occupancies.

### [§ 307.2.6 is hereby amended as follows:]

**307.2.6 Smoke and heat vents.** Smoke and heat venting shall be provided in areas containing hazardous materials as set forth in <u>Section 906 and</u> the Fire Code.

### Sec. 310. Requirements for Group R Occupancies.

### [§ 310.1 is hereby amended as follows:]

### 310.1 Group R Occupancies Defined. Group R. Occupancies shall be:

**Division 1.** Hotels and apartment houses.

Congregate residences (each accommodating more than 10 persons).

**Division 2.** Not used.

**Division 3.** Dwellings and lodging houses.

Congregate residences (each accommodating 10 persons or less).

Adult Care Homes (each accommodating 5 persons or less).

For occupancy separations, see Table 3-B.

A complete code for construction of detached one- and two-family dwellings is in Appendix Chapter 3, Division III, of this code. When adopted, as set forth in Section 101.3, it will take precedence over the other requirements set forth in Chapter 35 of this code.

### [§ 310.2.2 is hereby amended as follows:]

310.2.2 Special provisions. In non-sprinklered Group R, Division 1 Occupancies, dwelling units, guest rooms and their contiguous attic and under floor spaces shall be separated from each other and from public and common area by a one-hour fire-resistive occupancy separation.

**EXCEPTION:** Openings into corridors and exterior exit balconies shall comply with Section 1005.8.

Group R, Division 1 Occupancies more than two stories in height or having more than 3,000 square feet (279 m<sup>2</sup>) of floor area above the first story shall be not less than one-hour fire-resistive construction throughout except as provided in Section 601.5.2.2.

Storage or laundry rooms that are within Group R, Division 1 Occupancies that are used in common by tenants shall be separated from the rest of the building by not less than one-hour fire-resistive occupancy separation.

For Group R, Division 1 Occupancies with a Group S, Division 3 parking garage in the basement or first floor, see Section 311.2.2.

For attic space partitions and draft stops, see Section 708.

### [§ 310.3 is hereby amended by adding an Exception as follows:]

**310.3** Location on property. For fire-resistive protection of exterior walls and openings, as determined by location on property, see Section 503 and Chapter 6.

**EXCEPTION:** Where buildings abut a common property line, and provisions for continued maintenance have been approved, a single wall may be used in lieu of exterior wall protection for each building provided the wall is of non-combustible masonry or concrete construction without penetrations with a fire-resistive time period equal to the combined rating of the exterior walls required for each building and otherwise conforming to the requirements of Section 504.6.

### [§ 310.9.1.2 is hereby amended as follows:]

**310.9.1.2** Additions, alterations or repairs to Group R Occupancies. When one or more sleeping rooms are added or created in existing Group R Occupancies, smoke detectors shall be installed in accordance with Sections 310.9.1.3, 310.9.1.4 and 310.9.1.5 of this section.

### [§ 310.10 is hereby amended as follows:]

310.10 Fire alarm systems. Group R, Division 1 Occupancies shall be provided with an approved fire alarm system in apartment houses three or more stories in height and containing 16 or more dwelling units, in hotels three or more stories in height and containing 20 or more guest rooms and in congregate residences three or more stories in height and having on occupant load of 20 or more. A fire alarm and communication system shall be provided in Group R, Division 1 Occupancies located in a high-rise building.

The alarm signal shall be a distinctive sound which is not used for any other purpose other than the fire alarm. Alarm-signaling devices shall produce a sound that exceeds the prevailing equivalent sound level in the room or space by 15 decibels minimum, or exceeds any maximum sound level with a duration of 30 seconds minimum by 5 decibels minimum, whichever is louder. Sound levels for alarm signals shall be 120 decibels maximum.

For the purpose of this section, area separation walls shall not define separate buildings.

### Sec. 311. Requirements for Group S Occupancies.

### [Division 2 of § 311.1 is hereby amended as follows:]

Division 2. Ice plants, power plants, pumping plants, cold storage and creameries. Factories and workshops using noncombustible and nonexplosive materials. Storage and sales rooms containing only noncombustible and nonexplosive materials that are not packaged or crated in or supported by combustible material.

### [§ 311.2.3.2 is hereby amended as follows:]

**311.2.3.2 Marine or motor vehicle fuel-dispensing stations.** Marine or motor vehicle fuel-dispensing stations, including canopies and supports over pumps, shall be of noncombustible, fire-retardant-treated wood or of one-hour fire-resistive construction.

**EXCEPTIONS:** 1. Roofs of one story fuel-dispensing stations may be of heavy-timber construction.

2. Canopies conforming to Section 2603.13 may be erected over pumps.

Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4114 mm) to the lowest projecting element in the vehicle drive-through area.

A one-hour occupancy separation need not be provided between fuel-dispensing pumps covered with a canopy that is open on three or more sides, and a Group M Occupancy retail store <u>operated in conjunction therewith, provided</u>:

- 1. The Group M Occupancy is provided with two exits where required by Table No. 10-A separated as required by Section 1003.3.
- 2. Pump islands are not located within <u>10</u> feet (3048 mm) of the Group M Occupancy retail store.

### Sec. 312. Requirements for Group U Occupancies.

### [Item 2 of § 312.2.2 is hereby amended as follows:]

2. For a building containing only a Group U, Division 1 Occupancy, the exterior wall and opening protection shall be as required by Table 5-A for Group U, Division 1 Occupancies.

**EXCEPTION:** The separation of a one-story carport, completely open except for necessary structural supports, from unprotected openings in a Group R, Division 1 Occupancy, need not exceed 6 feet (1828 mm).

### Table 3-B. Required separation in buildings of mixed occupancy (hours).

### [Footnote 6 of Table 3-B is hereby amended as follows:]

6. For Group F, Division I woodworking establishments with more than <u>3</u> woodworking appliances, the occupancy separation shall be one-hour.

### Sec. 404. Covered mall buildings.

### [§ 404.2.1 is hereby amended as follows:]

**404.2.1 Type of construction.** One- and two-level <u>covered mall buildings shall be of Type I, II F.R., II one-hour, III one-hour, IV H.T. or V one hour construction</u>. Three-level <u>covered mall buildings</u> shall be <u>of Type I, II F.R.</u>, or II one-hour construction.

Anchor buildings and parking garages shall be limited in height and area in accordance with Sections 504, 505, 506, and 311.9 as amended.

[§ 404.3.1 is hereby amended as follows:]

- **404.3.1 Automatic sprinkler systems.** The covered mall building <u>anchor buildings</u> <u>and parking garages</u> shall be provided with an automatic sprinkler system conforming to the provisions of U.B.C. Standard No. 9-1 which is a part of this code. See Chapter 35. In addition to these standards, the automatic sprinkler system shall comply with the following:
  - 1. All automatic sprinkler system control valves shall be electrically supervised by an approved central, proprietary or remote station or a local alarm service which will give an audible signal at a constantly attended location.
  - 2. The automatic sprinkler system shall be complete and operative throughout the covered mall building prior to occupancy of any of the tenant spaces. The separation between an unoccupied tenant space and the covered mall building shall be subject to the approval of the building official and fire department.

3. Sprinkler protection for the mall shall be independent from that provided for tenant spaces. However, tenant spaces may be supplied by the same system if they can be independently controlled.

The respective increases for area <u>or</u> height for covered mall buildings, including anchor <u>buildings</u> and <u>parking garages</u>, specified in Sections 505, 506 <u>or</u> 311.9 of this code <u>are</u> permitted.

[§ 404.3.9 is hereby amended as follows:]

**404.3.9 Openings between anchor building and mall.** Openings between anchor buildings and the <u>covered mall building shall be protected as required by Section 601.2</u>.

**EXCEPTION:** Except for the occupancy separation between Group R, Division 1 sleeping rooms and the mall, openings and penetrations not concealed within the construction need not be protected.

[§ 404.4.2 is hereby amended as follows:]

**404.4.2 Determination of occupant load.** The occupant load permitted in any individual tenant space in a covered mall building shall be determined as required by Section 1002 of this code. Exit requirements for individual tenant spaces shall be based on the occupant load thus determined.

The occupant load permitted for the covered mall building, assuming all portions, including individual tenant spaces and the mall to be occupied at the same time, shall be determined by dividing the gross leasable area by the following occupant load factors:

Gross Leasable Floor Area	Occupant Load
<u>Up to 150,000</u>	One occupant for each 30 sq.ft.
150,000 to 350,000	5,000 plus one occupant for each 40 sq.ft. over 150,000 sq.ft.
More than 350,000	10,000 plus one occupant for each 50 sq.ft. over 350,000 sq.ft.

Exit requirements for the covered mall building shall be based on the occupant load thus determined.

The occupant load of anchor stores opening into the mall shall not be included in determining exit requirements for the mall.

[§ 404.4.4 is hereby amended as follows:]

**404.4.4 Arrangement of exits.** Group A, Division 1, 2 and 2.1 Occupancies shall be so located in the covered mall building that their entrance will be immediately adjacent to a principal entrance to the mall and shall have not less than one-half of their required exits opening directly to the exterior of the covered mall building.

Required exits for anchor buildings shall be provided independently from the mall exit system.

Malls shall not exit through anchor buildings. Malls terminating at an anchor building where no other means of exit has been provided shall be considered as a dead-end mall.

### Sec. 405. Stages and Platforms.

- [§ 405.1.2 is hereby amended by amending the definition of stage, legitimate as follows:]
- **405.1.2 Stage, legitimate**, is a stage wherein curtains, drops, leg drops, scenery, lighting devices or other stage effects are retractable horizontally or suspended overhead or the stage height is greater than 50 feet (15 240 mm).

[§ 405.2 is hereby amended as follows:]

**405.2 Platforms.** Temporary platforms may be constructed of any materials. The space between the floor and the platform above shall not be used for any purpose other than electrical wiring or plumbing to platform equipment.

Platforms shall be constructed of materials as required for the type of construction of the building in which the platform is located.

### **EXCEPTION**: The floor finish may be of wood.

When the space beneath a platform is used for any purpose other than equipment wiring or plumbing, the <u>usable space under the platform shall be protected on the enclosed side as required for</u> one-hour fire-resistive construction <u>or the space below the platform shall be sprinklered throughout.</u>

When the space beneath the platform is not used for any purpose other than equipment wiring or plumbing, the platform may be constructed of any type of materials permitted by this code. <u>Platforms containing concealed spaces of combustible material shall be fire blocked in accordance with Section 708.2.1.6.</u>

### Sec. 406. Motion picture projection rooms.

[The Exception to § 406.7 is hereby amended as follows:]

**406.7 Sanitary Facilities**. Every projection room shall be provided with a lavatory. Every projection room serving an assembly occupancy shall be provided with a water closet.

**EXCEPTION**: A water closet <u>and lavatory</u> shall not be required in a projection room where completely automated projection equipment is installed which does not require a projectionist in attendance for projection or rewinding film.

### Sec. 409. Pedestrian walkways.

[§ 409.1 is hereby amended as follows:]

**409.1 General.** A pedestrian walkway shall be considered a building when determining the roof covering permitted by Table No. 15-A. Pedestrian walkways connecting separate buildings need not be considered as buildings and need not be considered in the determination of the allowable floor area of the connected buildings when the pedestrian walkway complies with the provisions of this section.

Covered walkways attached to or projecting from a building where not connecting between buildings shall comply with the requirements of Section 705.

[§ 409.8 is hereby amended as follows:]

409.8 Pedestrian walkways over public streets. <u>In addition to the requirements contained in this section, pedestrian walkways over public ways shall comply with Section 3208.</u>

### Sec. 503. Location on Property

[§503.1 General, is hereby amended as follows:]

**503.1 General.** Buildings shall adjoin or have access to a public way or yard on not less than one side. Required yards shall be permanently maintained.

For the purpose of this section, the center line of an adjoining public way shall be considered an adjacent property line. (See also Section 1203.4.)

Required yards and all sewer and water services shall be on the same property as the building, and no building or sewer or water service shall be built across a recorded property line, except in accordance with the following provisions:

- 1. <u>Utility easements</u>. The Building Official may approve the provision of private sewer or water services to a lot or building site when such service is located within a permanent private utility easement duly-recorded in the deed records of Maricopa County for all the properties involved.
- 2. Lot combinations. Where two or more lots or parcels are owned by the same person or persons, such lots or parcels may be combined into a single building site by platting or replatting such lots or parcels into a single lot. Two contiguous lots or parcels may be combined by recording in the deed records of Maricopa County a permanent 'Covenant and Agreement to Hold Property as One Parcel' in the form approved by the Building Official. This agreement shall continue in effect unless otherwise released by authority of the Deputy Development Services Director/Building Safety of the City of Tempe in accordance with the Code.
- 3. <u>Integrated developments with multiple owners</u>. The Building Official may approve a permanent agreement between multiple property owners for purposes of considering two or more separately owned lots or parcels as a single lot for purposes of this Code. Supporting documentation shall be provided to the Building Official stipulating the reasons for the lot consolidation. This agreement shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinance of the City of Tempe.
- 4. **Open space easements**. The Building Official may approve a permanent yard agreement on one property for purposes of providing yards or open space sufficient to satisfy Building Code requirements on the adjacent property.
- 5. Agreement conditions. Agreements proposed or required under this section shall be permanent and binding on all property owners, their heirs and assigns. The agreements shall be in writing, shall be approved by the Building Official and shall be recorded in the deed records of Maricopa County for all the properties involved.

The agreements shall be enforceable by the Building Official and by each of the property owners, their heirs and assigns. The agreements shall require physical modification of any structures to fully comply with all applicable code requirements prior to alteration or expiration of the agreement. Alteration of the agreements or any condition or provision therein, or expiration or elimination of any such agreement, is prohibited except with the prior written approval of the Building Official. The Building Official shall have authority to revoke any agreement for non-compliance with any of its provisions, and thereafter to require the property owners to individually make each of their properties physically and fully compliant with all applicable code requirements without benefit of the agreement conditions. The Building Official shall not initiate or negotiate any such agreement, but shall consider agreements offered jointly by adjacent property owners. (7)

#### Sec. 504. Allowable floor areas.

[§ 504.1 is hereby amended as follows:]

**504.1** <u>Single floor</u> areas. The area of a <u>single floor</u> level building shall not exceed the limits set forth in Table 5-B except as provided in Section 505. <u>For mixed</u> occupancies, see Section 302.1 and 504.4.

[§ 504.2 is hereby amended as follows:]

**504.2 Areas of <u>multi-floor</u> buildings.** The total <u>area of all floor levels of multi-floor level</u> buildings <u>including basements shall not exceed</u> twice <u>the area allowed for single floor level buildings.</u> No single floor area shall exceed that permitted for a single floor level building. For mixed occupancies, see Section 302.1 and 504.3.

[§ 504.5 is hereby repealed.]

[§ 504.6.3 is hereby amended as follows:]

**504.6.3 Extensions beyond exterior walls.** Area separation walls shall extend horizontally to the outer edges of the horizontal projecting elements such as balconies, roof overhangs, canopies, marquees or architectural projections extending beyond the floor area as defined in Section 207.

**EXCEPTIONS:** 1. When horizontal projecting elements do not contain concealed spaces, the area separation wall may terminate at the exterior wall.

2. When the horizontal projecting elements contain concealed spaces, the area separation wall need only extend through the concealed space to the outer edges of the projecting elements.

The exterior walls and the projecting elements above shall be of not less than one-hour fire-resistive construction for a distance of not less than <u>twice</u> the depth of the projecting elements <u>at the termination</u> of the area separation wall. Openings within such widths shall be protected by fire assemblies having a fire protection rating of not less than three-fourths hour.

[Exception 2 of § 504.6.4 is hereby amended as follows:]

2. Two-hour area separation walls may terminate at the underside of the roof sheathing, deck or slab, provided:

- 2.1. Where the roof-ceiling framing elements are parallel to the walls, such framing and elements supporting such framing shall be of not less than one-hour fire-resistive construction for a width of not less than 5 feet (1524 mm) on each side of the wall.
- 2.2. Where roof-ceiling framing elements are <u>other than parallel</u> to the wall, the entire span of such framing and elements supporting such framing shall be of not less than one-hour fire-resistive construction.
- 2.3. Openings in the roof shall not be located within 5 feet (1524 mm) of the area separation wall.
  - 2.4. The entire building shall be provided with not less than a Class B Roofing.

[Exception 3 of § 504.6.4 is hereby amended as follows:]

- 3. Two-hour area separation walls may terminate at the underside of noncombustible roof sheathing, deck or slabs of roofs of noncombustible construction provided:
- 3.1 Openings in the roof are not located within 5 feet (1524 mm) of the area separation wall.
  - 3.2 The entire building is provided with not less than a Class B roof covering.

[Item 2 of the Exception to § 504.6.6 is hereby amended as follows:]

2. When the lower roof-ceiling framing elements are <u>other than parallel</u> to the wall, the entire span of such framing and elements supporting such framing shall not be of less than one-hour fire-resistive construction.

### Sec. 506. Maximum height of buildings and increases. (3)

[§ 506 is hereby amended by adding Item 6 as follows:]

6. Section 904.2.8 for Group R, Division 1 Occupancies.

### Sec. 507. Mezzanines.

[Item 5 of § 507 is hereby amended as follows:]

5. Two exits shall be provided from a mezzanine <u>having an occupant load of more</u> than 10.

### Sec. 508. Fire-Resistive Substitution.

[Item 4 of § 508 is hereby repealed]

## Sec. 601. Classification of all buildings by types of construction and general requirements.

[§ 601.6 is hereby added as follows:]

<u>601.6 Combustible piping, tubing and conduit.</u> Combustible piping, tubing, raceways, conduits and fittings shall be limited to use in Types II-N, III-N and V-N construction.

EXCEPTIONS: 1. Combustible piping systems for deionized water, industrial waste and vent, or other industrial process piping requiring non-metallic piping and combustible fire extinguishing systems <sup>(6)</sup> are not prohibited in any type of construction provided that all penetrations of fire-resistive assemblies are installed in accordance with Section 709.6 and 709.7 for walls and partitions or Sections 710.1, 710.2 and 710.4 for floor-ceiling or roof-ceiling assemblies.

- 2. In any type of construction, approved combustible conduits may be installed in concrete or solid grouted masonry construction subject to the following conditions:
- 2.1 Conduits are completely encased with 2 inches (51 mm) of concrete or solid grouted masonry on all sides.
- 2.2 Entry and exit of the encasement must be by approved steel conduits or boxes.
- 2.3 Terminal boxes on opposite sides of the wall, floor or roof shall be separated by at least six inches and any interconnecting conduits forming a through penetration shall be fire sealed.

See also Section 2106.1.9 for masonry or 1906.3 for concrete.

### Sec. 604. Type III Buildings.

- [§ 604.3.1 is hereby amended by adding an Exception as follows:]
- **604.3.1 Exterior walls.** Exterior walls shall be constructed of noncombustible materials and shall comply with the fire-resistive requirements set forth in Section 503 and Tables 5-A and 6-A.
  - **EXCEPTION:** In <u>other than Group H and I</u> Occupancies, exterior noncombustible bearing walls may be two-hour fire-resistive where openings are permitted.
  - [§ 604.5 is hereby amended as follows:]
  - **604.5 Roofs.** Roof coverings shall be as specified in Chapter 15.

### Sec. 605. Type IV Buildings.

- [§ 605.3.1 is hereby amended by adding an Exception as follows:]
- **605.3.1 Exterior walls.** Exterior walls shall be constructed of noncombustible materials and shall comply with the fire-resistive requirements set forth in Section 503 and Tables 5-A and 6-A.
  - **EXCEPTION**: In <u>other than Group H and I</u> Occupancies, exterior noncombustible bearing walls may be two-hour fire-resistive where openings are permitted.

### Sec. 610. Fire Zones.

[Chapter 6 is hereby amended by adding Section 610 as follows:]

### 610.1 General.

- 610.1.1 Fire zones defined. For purposes of this code, the following areas of the City shall be known and designated as a fire zone. Whenever reference is made to any fire zone in this code, it shall be construed to mean one of the fire zones created by this chapter.
  - 1. All areas of the City situated within any Service Zoning District and any Industrial Zoning District classified by the Zoning Ordinance of the City.
  - 2. All areas of the City situated within any Service Zoning District and any Industrial Zoning District as henceforth classified by any Zoning Ordinance of the City.
- 610.1.2 Buildings located partly in a fire zone. A building or structure located partly in a fire zone shall be considered to be totally within said fire zone when more than one-third of its total floor area is located in such zone. When one-third of the floor area or less is located in a fire zone, only that portion of the building shall be required to conform to the fire zone requirements.
- <u>610.1.3 Moved buildings.</u> Any building or structure moved within or into any fire zone shall be made to comply with all the requirements for new buildings in that fire zone.

### 610.2 Restrictions in the fire zones.

<u>610.2.1 General.</u> Buildings or structures hereafter erected, constructed, moved within or into a fire zone shall be only of Type I, II-F.R., II One-hour, II N, III One-hour, III N, IV or V One-hour.

**EXCEPTIONS:** 1. Buildings limited to the following uses may be of Type V-N Construction when conforming to the requirements of this code.

- 1.1 Single and Multi-Family dwellings and accessory structures.
- 1.2 Churches and church-related uses.
- 1.3 Group E Occupancies and related uses.
- 2. Where an automatic sprinkler system is installed throughout the building, Type V-N construction may be used and area or height increases in accordance with Section 505 or 506 are permitted using the basic allowable area in Table 5-B or maximum height in Table 5-B for Type V-N construction.

Roof coverings shall be Class A or B as specified in Table No. 15-A. See Section 3403.5 for repairs.

<u>610.2.2 Alterations.</u> Except as provided in Section 611.1, no building of Type V-N Construction already erected in a fire zone shall hereafter be altered, enlarged, added to or moved except as follows:

- 1. Such building may be made to conform to the provisions of Section 611.1.
- 2. Alterations and repairs to the interior of such building or to the exterior thereof facing a street or yard 40 feet (12 192 mm) or more in width may be made provided such changes do not, in the opinion of the building official, increase the fire hazard of such building.
- 3. Roof coverings shall be Class A or B as specified in Table 15-A. See Section 3403.5 for repairs.
- 4. Such building may be moved entirely outside the limits of the fire zones.
- 5. Combustible finish on the outside of walls may be replaced by or covered with exterior plaster as specified in Chapter 25.
- 6. Additions complying with the requirements for new buildings or structures and not exceeding 50 percent of the area of the existing building or structure may be made to such buildings without making the entire building comply. The building or structure including new additions shall not exceed the area, height and number of stories specified in this code for Type V-N construction.
- <u>610.2.3 Automatic fire extinguishing systems.</u> Any building or structure erected, constructed, moved within or into a fire zone shall comply with the requirements of Section 904.2.

### Sec. 703. Fire-resistive materials and systems.

[§ 703.1 is hereby amended as follows:]

**703.1 General.** Materials and systems used for fire-resistive purposes shall be limited to those specified in this chapter unless accepted under the procedure given in Section 703.2 or 703.3. For standards referred to in this chapter, see Chapter 35.

The materials and details of construction for the fire-resistive systems described in this chapter shall be in accordance with all other provisions of this code except as modified herein.

For the purpose of determining the degree of fire-resistance afforded, the materials of construction listed in this chapter shall be assumed to have the fire-resistance rating indicated in Table No. 7-A, 7-B or 7-C.

### Sec. 709. Walls and partitions.

[§ 709.3.1 is hereby amended as follows:]

**709.3.1 Extension through attics and concealed spaces**. In fire-resistive exterior wall construction where openings are prohibited or protection of openings is required, the fire-resistive rating shall be maintained for such walls passing through attic areas or other areas containing concealed spaces.

[§ 709.6 is hereby amended as follows:]

**709.6 Through penetrations.** Penetrating items passing entirely through walls requiring protected openings shall be protected with through-penetration fire stops complying with Section 714.

**EXCEPTIONS**: 1. Copper or ferrous pipe or conduit penetrations for continuous piping or conduit systems not larger than a 4-inch nominal (100 mm) pipe or 16 square inches (10 320 mm²) in overall cross-sectional area, where the annular space between the penetrating items and the wall assembly being penetrated is filled with a material which will prevent the passage of flame and hot gases sufficient to ignite cotton waste when subjected to UBC Standard No. 7-1 time-temperature fire conditions for the time period at least equal to the fire-resistance rating of the wall assembly.

2. Copper or ferrous pipe or conduit penetrations <u>for continuous piping or conduit systems</u> not larger than 4 inch nominal (100 mm) pipe or 16 square inches (10 320 mm<sup>2</sup>) in overall cross-sectional area <u>through</u> concrete or masonry wall assemblies <u>may be</u> filled with concrete, grout or mortar for the full thickness of the wall assembly.

Where concrete or masonry walls contain hollow spaces, the concrete, grout or mortar shall completely surround the penetration to a thickness equal to at least one half the wall thickness.

3. Duct penetrations complying with Section 713.

The T rating for through-penetration fire stops in fire-rated walls requiring protected openings shall apply to penetrations in the following locations:

- 1. Above corridor ceilings which are not part of a fire-resistive assembly.
- 2. Below any ceiling.

**EXCEPTION:** Any through-penetrating item not larger than a 4-inch (100 mm) nominal pipe or 16 square inches (10 320 mm<sup>2</sup>) in overall cross-sectional area need not have a T rating.

[§ 709.7 is hereby amended as follows:]

709.7 Membrane penetrations. Penetrating items passing through protective membranes of walls requiring protected openings shall be protected with membrane penetration fire stops complying with Section 714.

**EXCEPTIONS:** 1. Copper or ferrous pipe or conduit penetrations for continuous piping or conduit systems not larger than 4-inch (100 mm) nominal pipe or 16 square inches (10 320 mm²) in overall cross-sectional area, where the annular space between the penetrating items and the <u>wall assembly</u> being penetrated is filled with a material which will prevent the passage of flame and hot gases sufficient to ignite cotton waste when subjected to UBC Standard No. 7-1 time-temperature fire conditions for the time period at least equal to the fire-resistance of the wall assembly.

2. Walls may have openings for steel electrical outlet boxes not exceeding 16 square inches (10 320 mm²) in area, provided the aggregate area of such openings is not more than 100 square inches (64 500 mm²) for any 100 square feet (9.29 m²) of wall or partition area.

- 3. Duct penetrations complying with Section 713.
- 4. Penetrations of noncombustible sprinkler pipe supporting a wall mounted sprinkler head.

Outlet boxes on opposite sides of walls and partitions shall be separated by a horizontal distance of at least 24 inches (610 mm).

### Sec. 710. Floor-ceilings or roof-ceilings.

[§ 710.2 is hereby amended as follows:]

**710.2 Ceiling membrane protection.** When a ceiling forms the protective membrane for a fire-resistive floor-ceiling or roof-ceiling assembly, the ceiling shall be without openings. Penetrating items passing through protective membranes of ceilings shall be protected with membrane penetration fire stops complying with Section 714.

**EXCEPTIONS:** 1. <u>Penetrations</u> for noncombustible sprinkler pipe <u>supporting a sprinkler head within 20 inches (508 mm) of the ceiling</u> and openings for steel electrical outlet boxes not greater than 16 square inches (10 320 mm²) in area may be installed, provided the aggregate area of such openings through the ceiling is not more than 100 square inches (64 500 mm²) for any 100 square feet (9.29 m²) of ceiling area.

- 2. Duct openings <u>and penetrations</u> protected with approved ceiling fire dampers.
- 3. In other than corridors that are required to have fire-resistive ceilings, duct openings <u>and penetrations</u> may be unprotected when tests, conducted in accordance with U.B.C. Standard No. 7-1, have shown that protection is not required to maintain the fire resistance of the assembly.
- 4. Other ceiling openings and penetrations may be installed where such openings and penetrations and the assemblies in which they are utilized are tested in accordance with the provisions of U.B.C. Standard No. 7-1.
  - 5. Openings enclosed in fire-resistance-rated shaft enclosures.
- 6. Access doors may be installed in such ceilings when they are approved horizontal access door assemblies listed for such purpose.
- 7. Copper or ferrous pipe or conduit penetrations for continuous piping or conduit systems not larger than a 4-inch nominal (100 mm) pipe or 16 square inches (10 320 mm²) in overall cross-sectional area where the annular space between the penetrating items and the assembly being penetrated is protected with a material which will prevent the passage of flame and hot gases sufficient to ignite cotton waste when subjected to U.B.C. Standard No. 7-1 time-temperature fire conditions for the time period at least equal to the fire-resistance rating of the assembly.

Where the weight of lay-in ceiling panels used as part of fire-resistive floor-ceiling or roof-ceiling assemblies is not adequate to resist an upward force of 1 pound per square foot (47.9 Pa), wire holddowns or other approved devices shall be installed above the panels to prevent vertical displacement under such upward force.

[Exception 5 of § 710.3 is hereby amended as follows:]

- 5. Penetrations protected with through-penetration fire stops <u>complying with</u> <u>Section 714</u>. The T rating shall apply only to:
- 5.1. Penetrations which are not contained within a wall at the point where they penetrate the floor, or
- 5.2. Penetrations which are larger than a 4-inch (100 mm) nominal pipe or 16 square inches (10 320 mm²) in overall cross-sectional area.

[Exception 6 of § 710.3 is hereby amended as follows:]

6. <u>Copper or ferrous pipe or conduit penetrations for continuous piping or conduit systems</u> not larger than a 4-inch (100 mm) nominal pipe or 16 square inches (10 320 0mm²) in overall cross-sectional area, where the annular space between the penetrating items and the assembly being penetrated is protected with a material which will prevent the passage of flame and hot gases sufficient to ignite cotton waste when subjected to U.B.C. Standard No. 7-1 time-temperature fire conditions for the time period at least equal to the fire-resistance rating of the assembly.

[Exception 7 of § 710.3 is hereby amended as follows:]

7. Copper or ferrous pipe or conduit penetrations <u>for continuous piping or conduit systems</u> not larger than 4 inch (100 mm) nominal pipe or 16 square inches (10 320 mm²) in overall cross-sectional area <u>through</u> concrete or masonry floor assemblies <u>may be</u> filled with concrete, grout or mortar for the full thickness of the floor assembly.

Where concrete or masonry floors contain hollow spaces, the concrete, grout or mortar shall completely surround the penetration to a thickness equal to at least one half the floor thickness.

[§ 710.5 is hereby amended as follows:]

**710.5 Wiring in plenums.** Wiring in plenums shall comply with the <u>Electrical</u> Code.

### Sec. 713. Fire-resistive assemblies for protection of openings.

[§ 713.10 is hereby amended as follows:]

- **713.10 Smoke dampers.** Not less than Class II, 250°F. (121°C.) smoke dampers complying with approved recognized standards (see Chapter 35, Part III) shall be installed and be accessible for inspection and servicing in the following ducted or unducted air openings <u>through</u>:
  - 1. Area or occupancy separation walls.
  - 2. The fire-resistive construction of horizontal exit walls or corridors serving as required exits.

**EXCEPTION:** Openings for steel ducts penetrating the required fire-resistive construction of corridors are not required to have smoke dampers when such ducts are of not less than 0.0019-inch (0.48 mm) thickness (No. 26 galvanized sheet steel gage) and have no openings serving the corridor.

3. Shaft enclosures.

**EXCEPTION:** Exhaust-only openings serving continuously operating fans and protected using the provisions of Chapter 9.

- 4. Smoke barriers.
- 5. Enclosure elements of elevator lobbies required by Section 3002.
- 6. <u>Enclosure elements</u> of areas of refuge.

**EXCEPTION:** Ventilation systems specifically designed and protected to supply outside air to these areas during an emergency.

A smoke damper need not be provided when it can be demonstrated that the smoke damper is not essential to limit the passage of smoke under passive conditions and the proper function of a smoke-control system complying with Chapter 9 does not depend on the operation of the damper. Smoke dampers may be omitted at openings which must be maintained open for proper operation of a mechanical control system provided that adequate protection against smoke migration, in the event of system failure, has been provided.

[§ 713.11 is hereby amended as follows:]

**713.11 Fire dampers.** Fire dampers complying with the requirements of approved recognized standards (see Chapter 35, Part III) shall be installed and be accessible for inspection and servicing in the following ducted and unducted air openings at:

- 1. Penetrations through <u>protective elements</u> of area separation walls or occupancy separations.
- 2. Penetrations <u>through protective elements</u> of the fire-resistive construction of horizontal exit walls or corridors serving as required exits.

**EXCEPTION:** Openings for steel ducts penetrating the required fire-resistive construction of corridors are not required to have fire dampers when such ducts are of not less than 0.019-inch (0.48 mm) thickness (No. 26 galvanized sheet steel gage) and have no openings serving the corridor.

3. Penetrations through protective elements of shaft enclosures.

**EXCEPTIONS:** 1. Duct penetrations by steel exhaust air subducts extending at least 22 inches (559 mm) above the top of the opening in a vented shaft and the airflow is upward.

- 2. Penetrations of a fire-resistive floor forming the base of a shaft enclosure may be protected by fire dampers listed for installation in the horizontal position.
- 4. Penetrations of the ceiling of fire-resistive floor-ceiling or roof-ceiling assemblies shall be protected in accordance with Section 710.2

- 5. Penetrations of an atrium enclosure element.
- 6. Penetrations of the building exterior required to have protected openings by Section 503.
- 7. Penetrations of enclosure elements of areas of refuge.

**EXCEPTION:** Ventilation systems specifically designed and protected to supply outside air to these areas during an emergency.

A fire damper is not required where fire tests have demonstrated that fire dampers are not required to maintain the fire resistance of the construction.

The operating temperature of the fire-damper actuating device shall be approximately 50°F. (10°C.) above the normal temperature within the duct system, but not less than 160°F. (71°C.). The operating temperature of the actuating device may be increased to not more than 286°F. (141°C.) when located in a smoke-control system complying with Chapter 9.

### Sec. 805. Textile wall coverings.

[§ 805 is hereby amended by adding an Exception as follows:]

**EXCEPTION:** Carpet extending up a wall surface not more than 8 inches (200 mm) above the floor.

### Sec. 807. Sanitation.

[Exception 1 of § 807.1.2 is hereby amended as follows:]

**EXCEPTIONS:** 1. Dwelling units.

[Exception 2 of § 807.1.2 is hereby amended as follows:]

2. Toilet rooms <u>for private use</u> which have not more than one water closet. <u>Private use shall mean a toilet room accessible only to and restricted for the use of an</u> individual.

### Sec. 902. Standards of quality.

[Item 1.2 of § 902 is hereby amended as follows:]

1.2 UBC Standard No. 9-3, Installation of Sprinkler Systems in Group R, <u>Division 4</u> Occupancies.

### Sec. 904. Fire-extinguishing systems.

[§ 904.1.1 is hereby amended as follows:]

**904.1.1 General.** <u>All</u> fire-extinguishing systems required in this code shall be installed in accordance with the requirements of this section.

Fire hose threads used in connection with fire-extinguishing systems shall <u>comply</u> with the standards of the Fire Department.

The location of fire department hose connections shall be approved by the fire department.

In buildings used for high-piled combustible storage, fire protection shall be in accordance with the Fire Code.

[§ 904.1.2 is hereby amended as follows:]

**904.1.2 Standards.** Fire-extinguishing systems shall comply with U.B.C. Standards Nos. 9-1 and 9-2.

Combustible pipe, tubing and fittings shall be listed and labeled and shall be installed in accordance with their listing. Combustible systems shall be limited to Type II-N, III-N and V-N construction. (6)

**EXCEPTIONS:** 1. Fire-extinguishing systems not covered by U.B.C. Standard No. 9-1 or 9-2 shall be approved and installed in accordance with the <u>Fire Code</u>.

- 2. Automatic sprinkler systems may be connected to the domestic water-supply main when approved by the building official, provided the domestic water supply is of adequate pressure, capacity and sizing for the combined domestic and sprinkler requirements. In such case, the sprinkler system connection shall be made between the public water main or meter and the building shutoff valve, and there shall not be intervening valves or connections. The fire department connection may be omitted when approved by the fire department.
- 3. Automatic sprinkler systems in Group R, <u>Division 4</u> Occupancies may be in accordance with UBC Standard No. 9-3 <u>or NFPA 13D-1994 editions provided there are no deletions of sprinklers in bathrooms, closets containing mechanical or electrical equipment, foyers, garages, carports, accessible areas under interior stairs and landings used for storage or living purposes.</u>

[§ 904.1.3 is hereby amended as follows:]

**904.1.3 Modifications.** When residential sprinkler systems are provided, <u>area increases for yards or automatic sprinkler systems as specified in Section 505</u> and exceptions to or reductions in code requirements based on the installation of an automatic fire-extinguishing system are not allowed.

[§ 904.2.1 is hereby amended as follows:]

**904.2.1** Where required. An automatic fire-extinguishing system shall be installed in the occupancies and locations as set forth in this section.

Each portion of a building separated by area separation walls complying with Section 504.5 into areas not exceeding the limitations specified in this section need not be equipped with an automatic sprinkler system.

For provisions on special hazard chemicals and hazardous materials, see the Fire Code.

# **904.2.2** All occupancies except Group R, Division 3 and Group U Occupancies. Except for Group R, Division 3 and Group U Occupancies, an automatic sprinkler system shall be installed:

1. In every story or basement of all buildings when the floor area exceeds 1,500 square feet (139.4 m²) and there is not provided at least 20 square feet (1.86 m²) of opening entirely above the adjoining ground level in each 50 lineal feet (15 240 mm) or fraction thereof of exterior wall in the story or basement on at least one side of the building. Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that firefighting or rescue cannot be accomplished from the exterior.

When openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22 860 mm) from such openings, the story shall be provided with an approved automatic sprinkler system, or openings as specified above shall be provided on at least two sides of an exterior wall of the story.

If any portion of a basement is located more than 75 feet (22,860 mm) from openings required in this section, the basement shall be provided with an approved automatic sprinkler system.

- 2. At the top of rubbish and linen chutes and in their terminal rooms. Chutes extending through three or more floors shall have additional sprinkler heads installed within such chutes at alternate floors. Sprinkler heads shall be accessible for servicing.
- 3. In rooms where nitrate film is stored or handled.
- 4. In protected combustible fiber storage vaults as defined in the Fire Code.
- 5. Throughout any Group R, Division 1 occupancy more than one story in height, and other occupancies more than two stories in height.

The automatic sprinkler system may be used as a substitute for one-hour fire-resistive construction in accordance with Section 508.

Where the automatic sprinkler system is not used as a substitute for one-hour fire-resistive construction pursuant to Section 508, and the building is sprinklered throughout, the area or height increase specified in Section 505 or 506 is permitted.

[§ 904.2.3.1 is hereby amended as follows:]

904.2.3.1 General. An automatic sprinkler system shall be installed throughout any Group A Occupancy and accessory uses when the total floor area including any basement or mezzanine exceeds 5,000 square feet (465 m<sup>2</sup>) and any Group A, Division 2.1 drinking or dining establishment. The automatic sprinkler system may be used as a substitute for one-hour fire-resistive construction in accordance with Section 508.

**EXCEPTION:** Group A, Division 4 Occupancies with usable floor area under a roof or floor above of 5000 square feet  $(465 \text{ m}^2)$  or less need not be sprinklered.

Where the automatic sprinkler system is not used as a substitute for one-hour fire-resistive construction pursuant to Section 508, and the building is sprinklered throughout, the area or height increase specified in Section 505 or 506 is permitted.

[§ 904.2.4.1 is hereby amended as follows:]

904.2.4.1 General. An automatic sprinkler system shall be installed throughout any Group E Occupancy and accessory uses when the total floor area including any basement or mezzanine exceeds 5,000 square feet (465 m<sup>2</sup>). The automatic sprinkler system may be used as a substitute for one-hour fire-resistive construction in accordance with Section 508.

Where the automatic sprinkler system is not used as a substitute for one-hour fire-resistive construction pursuant to Section 508, and the building is sprinklered throughout, the area or height increase specified in Section 505 or 506 is permitted.

[§ 904.2.5.4 is hereby added as follows:]

904.2.5.4 Group H, Division 5. An automatic sprinkler system shall be installed throughout any Group H, Division 5 Occupancy and accessory uses when the total floor area including any basement or mezzanine exceeds 5000 square feet (465 m<sup>2</sup>). The automatic sprinkler system may be used as a substitute for one-hour fire-resistive construction in accordance with Section 508.

Where the automatic sprinkler system is not used as a substitute for one-hour fire-resistive construction pursuant to Section 508, and the building is sprinklered throughout, the area or height increase specified in Section 505 or 506 is permitted.

[§ 904.2.7 is hereby amended as follows:]

904.2.7 Group B, F, M, or S Occupancies. An automatic sprinkler system shall be installed throughout any Group B, F, M or S Occupancy and accessory uses when the total floor area including any basement or mezzanine exceeds 5000 square feet (465 m<sup>2</sup>). The automatic sprinkler system may be used as a substitute for one-hour fire-resistive construction in accordance with Section 508.

An automatic sprinkler system shall be installed in woodworking occupancies over 2,500 square  $(225 \text{ m}^2)$  feet in area.

Where the automatic sprinkler system is not used as a substitute for one-hour fire-resistive construction pursuant to Section 508, and the building is sprinklered throughout, the area or height increase specified in Section 505 or 506 is permitted.

[§ 904.2.8 is hereby amended as follows:]

<u>904.2.8.1</u> Group R, Division 1 Occupancies. An automatic sprinkler system shall be installed throughout <u>any Group R</u>, <u>Division 1 Occupancy and accessory uses more than one (1) story in height or when the total floor area including basements and mezzanines exceeds 2000 square feet (186 m<sup>2</sup>). Residential or quick-response standard sprinkler heads shall be used in the dwelling unit and guest room portions of the building.</u>

For Group R, Division 1 Occupancies not exceeding two (2) stories in height, the automatic sprinkler system may be used as a substitute for one-hour fire-resistive construction in accordance with Section 508.

904.2.8.2 Group R, Division 4 Occupancies. An automatic sprinkler system shall be installed throughout any Group R, Division 4 Occupancy.

[§ 904.2.9 is hereby added as follows:]

- 904.2.9 Additions. An addition may be made to an existing building without installing an automatic sprinkler system provided the total area of the existing building and the addition does not exceed the limitations specified in this section. Whenever the total area of the existing building and the addition exceeds the limitations specified in this section, an automatic sprinkler system shall be installed throughout.
  - **EXCEPTIONS:** 1. The existing building need not be equipped with an automatic sprinkler system provided the addition complies with the requirements of Section 904 as amended and is separated by an area separation wall from the existing building.
  - 2. The existing building and additions need not be equipped with an automatic sprinkler system provided the additions within a twelve-month period do not exceed 400 (37.16 m²) square feet to a Group R, Division 1 Occupancy, nor 1000 square feet (92.9 m²) to Groups A, B, E, F, M, or S Occupancy and the total area of the existing building and additions does not exceed the allowable area specified in Section 505.

Whenever the number of stories of an existing building is increased above the limits of Section 904, an automatic sprinkler system shall be installed throughout.

[§ 904.2.10 is hereby added as follows:]

904.2.10 Change of use. Whenever a change is made in the character of occupancies or use of any building which would place the building in a different division of the same group of occupancy or in a different group of occupancies, such building shall be made to comply with Section 904 as amended.

**EXCEPTIONS:** 1. Whenever a change of use is made to a portion of a building, the entire building need not comply with the requirements of Section 904 as amended provided:

- 1.1. The building so altered shall not exceed the height, number of stories or area allowed at the time the building was permitted, and
- 1.2 The change in use complies with the requirements of Section 904 as amended.
- 2. A change of use of any building or portion thereof within one of the following:
- 2.1. Group B; Group F, Division 1 except woodworking occupancies; Group M and Group S, Division 1, or
  - 2.2. Group F, Division 2 and Group S, Division 2, or
  - 2.3. Group S, Division 4 and Group S, Division 5

[§ 904.3.2 is hereby repealed.]

### Table 9-A -- Standpipe requirements.

[Table 9-A is hereby amended as follows:]

**Table 9-A -- Standpipe Requirements** 

	OCCUPANCY	NONSPRINKLERED BUILDING <sup>1</sup>		SPRINKLERED BUILDING <sup>2, 3</sup>	
	x 304.8 for mm x 0.0929 for m <sup>2</sup>	Standpipe Class	Hose Requirement	Standpipe Class	Hose Requirement
1.	Occupancies exceeding 150 ft. in height and more than one story	III	Yes	<u>III</u>	No
2.	Occupancies 4 stories or more but less than 150 ft. in height, except Group R, Div. 3 <sup>7</sup>	[I and II <sup>4</sup> ] (or III)	Yes <sup>5</sup>	I <u>(or III)</u>	No
3.	Group A Occupancies with occupant load exceeding 1,000 <sup>6</sup>	II	Yes	No Requirement	No
4.	Group A, Div. 2.1 Occupancies over 5,000 square feet in area used for exhibition	II	Yes	II	Yes
5.	Groups I; H; B; S; M; F; Division 1 Occupancies less than 4 stories in height but greater than 20,000 square feet per floor <sup>7</sup>	$\Pi^4$	Yes	No Requirement	No
6.	Stages more than 1,000 square feet in area	II	No	III	No

Except as otherwise specified in Item No. 4 of this table, Class II standpipes need not be provided in basements having an automatic fire-extinguishing system throughout.

Combined systems with their related water supplies may be used in sprinklered buildings.

Portions of otherwise sprinklered buildings which are not protected by automatic sprinklers shall have Class II standpipes installed as required for the unsprinklered portions.

In open structures where Class II standpipes may be damaged by freezing, the building official may authorize the use of Class I standpipes which are located as required for Class II standpipes.

Hose is required for Class II standpipes only.

Class II standpipes need not be provided in assembly areas used solely for worship.

For the purposes of this table, occupied roofs of parking structures shall be considered an additional story. In parking structures, a tier is a story.

### Sec. 1003. Exits required.

[§ 1003.5 is hereby amended as follows:]

1003.5 Exits through adjoining rooms. Rooms may have one required exit that passes through an adjoining or intervening room or area which provides a direct, obvious and unobstructed means of travel to an exit corridor, exterior exit door, horizontal exit, exit passageway, or enclosed stairway, provided the total travel distance does not exceed that permitted by other provisions of this code and the room or area is accessory to the area it services and accessible for exiting purposes at all times that the main use is occupied.

**EXCEPTIONS:** 1. Rooms within dwelling units may exit through more than one intervening room.

2. Rooms with a cumulative occupant load of 10 or less may exit through more than one intervening room.

In other than dwelling units, exits shall not pass through kitchens, store rooms, rest rooms, closets or spaces used for similar purposes.

Foyers, lobbies and reception rooms constructed as required for corridors shall not be construed as intervening rooms.

### Sec. 1004. Doors.

[§ 1004.3 is hereby amended as follows:]

**1004.3 Type of lock or latch.** Exit doors shall be openable from the inside without the use of a key or any special knowledge or effort.

**EXCEPTIONS:** 1. This requirement shall not apply to exit doors in a Group B, F, M or S Occupancy if there is a readily visible, durable sign on or adjacent to the door stating **THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS.** The sign shall be in letters not less than 1 inch (25 mm) high on a contrasting background. When unlocked, the single door or both leaves of a pair of doors must be free to swing without operation of any latching device. The use of this exception may be revoked by the building official for due cause.

- 2. Exit doors from <u>buildings or rooms</u> having an occupant load of 10 or less may be provided with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key, or tool and mounted at a height not to exceed 48 inches (1219 mm) above the finished floor.
- 3. Group R, Division 3 Occupancies and individual dwelling units and guest rooms within Group R, Division 1 Occupancies.

Manually operated edge- or surface-mounted flush bolts and surface bolts are prohibited. When exit doors are used in pairs and approved automatic flush bolts are used, the door leaf having the automatic flush bolts shall have no door knob or surface-mounted hardware. The unlatching of any leaf shall not require more than one operation.

**EXCEPTION:** 1. Group R, Division 3 Occupancies <u>and individual dwelling</u> units and guest rooms within Group R, Division 1 Occupancies.

- 2. When a pair of doors serving a room not normally occupied are needed for the movement of equipment, manually operated edge or surface bolts may be used and a door closer need not be provided on the inactive leaf.
- 3. This requirement shall not apply to exit doors in a Group B, F, M or S Occupancy if there is a readily visible, durable sign on or adjacent to each leaf stating THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS. The sign shall be in letters not less than one inch high on a contrasting background. The use of this exception may be revoked by the building official for due cause.

[§ 1004.5 is hereby amended as follows:]

- **1004.5 Special egress-control devices.** When approved by the building official, exit doors in Group B; Group F, Division 1; Group I, Division 2; Group M; and Group R, Division 4 residences serving as group-care facilities may be equipped with approved listed special egress-control devices of the time-delay type, provided the building is protected throughout by an approved automatic sprinkler system and an approved automatic smoke-detection system. Such devices shall conform to all of the following:
  - 1. Automatically deactivate the egress-control device upon activation of either the sprinkler system or the detection system.
  - 2. Automatically deactivate the egress-control device upon loss of electrical power to any one of the following:
  - 2.1 The egress-control device.
  - 2.2 The smoke-detection system.
  - 2.3 Exit illumination as required by Section 1012.
- 3. Be capable of being deactivated by a signal from a switch located in an approved location.
- 4. Initiate an irreversible process which will deactivate the egress-control device whenever a manual force of not more than 15 pounds (66.72 N) is applied for two seconds to the panic bar or other door-latching hardware. The egress-control device shall deactivate within an approved time period not to exceed a total of 15 seconds. The time delay established for each egress-control device shall not be field adjustable.
- 5. Actuation of the panic bar or other door-latching hardware shall activate an audible signal at the door.
  - 6. The unlatching shall not require more than one operation.

A sign shall be provided on the door located above and within 12 inches (305 mm) of the panic bar or other door latching hardware reading:

KEEP PUSHING. THIS DOOR WILL OPEN IN \_\_\_\_\_ SECONDS. ALARM WILL SOUND.

Sign letter shall be at least 1 inch (25 mm) in height and shall have a stroke of not less than 1/8 inch (3.2 mm).

Regardless of the means of deactivation, relocking of the egress-control device shall be by manual means only at the door.

### Sec. 1005. Corridors and exterior exit balconies.

[§ 1005.1 is hereby amended as follows:]

**1005.1 General.** This section shall apply to every corridor serving as a required exit for an occupant load of 10 or more except that Section 1005.2 shall apply to all corridors. For the purposes of the section, the term corridor shall include exterior exit balconies and any covered or enclosed exit passageway, including walkways, tunnels and malls. Partitions, rails, counters and similar space dividers not over 5 feet, 9 inches (1753 mm) in height above the floor shall not be construed to form corridors.

Exit corridors that are required to be protected in accordance with Section 1005.7 shall be continuous until egress is provided from the building and shall not be interrupted by intervening rooms.

**EXCEPTION:** Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.

Corridors which are located within an accessible route of travel shall also comply with Chapter 11.

For Group I Occupancies see Section 1019.3.

### Sec. 1006. Stairways.

[§ 1006.13 is hereby amended by repealing the last paragraph.]

### Sec. 1010. Exit courts.

[§ 1010.2 is hereby amended as follows:]

**1010.2 Width.** Exit court minimum widths shall be determined in accordance with provisions of Section 1003 based on the occupant load and such required width shall be unobstructed to a height of 7 feet (2134 mm), except for projections permitted in corridors by Section 1005. The width of exit courts shall not be less than 44 inches (1118 mm) except Group R, Division 3, <u>individual units of Group R, Division 1</u> and Group U Occupancies, where the width may be reduced to 36 inches (914 mm).

When the width is reduced from any cause, the reduction shall be effected gradually by a guardrail at least 3 feet (914 mm) in height and making an angle of not more than 30 degrees with the axis of the exit court.

### Sec. 1016. Group A Occupancies.

[§ 1016.6 is hereby added as follows:]

<u>1016.6 Skating rinks</u>. Skating rinks shall be located in the first story and exits shall be by means of ramps not exceeding a slope of one in twelve.

### Table 10-A -- Minimum egress and access requirements.

[Table 10-A is hereby amended as follows:]

Table No. 10-A - Minimum Egress and Access  $\mathsf{Requirements}^1$ 

	USE <sup>2</sup>	MINIMUM OF TWO EXITS OTHER THAN ELEVATORS ARE REQUIRED WHERE NUMBER OF OCCU- PANTS IS AT LEAST	OCCUPANT LOAD FACTORS <sup>3</sup>
1.	Aircraft Hangars (No Repair)	10	500
2.	Auction Rooms	30	7
3.	Assembly Areas, Concentrated Use (without fixed seats) Auditoriums Bowling Alleys (Assembly Areas) Churches and Chapels Dance Floors Lobby Accessory to Assembly Area Lodge Rooms Reviewing Stands Stadiums Waiting Area	50	7
4.	Assembly Areas, Less-Concentrated Use Conference Rooms Dining Rooms Drinking Establishments Exhibit Rooms Game Rooms Gymnasiums Lounges Stages	50	15
5.	Bowling Alley (assume no occupant load for bowling lanes.)	50	4
6.	Children's Homes and Homes for the Aged	6	80
7.	Classrooms	50	20
8.	Congregate residences (accommodating 10 or less persons and having an area of 3,000 square feet or less) Congregate residences (accommodating more than 10 persons or having an are of more	10	300
	than 3,000 square feet)	10	200
		50	40
10.	Dormitories	10	50
11.	Dwellings	10	300
12.	Exercise Rooms	50	50

	USE <sup>2</sup>	MINIMUM OF TWO EXITS OTHER THAN ELEVATORS ARE REQUIRED WHERE NUMBER OF OCCU- PANTS IS AT LEAST	OCCUPANT LOAD FACTORS <sup>3</sup>
13.	Garage, Parking	30	200
14.	Hospitals and Sanitariums - Nursing Homes Sleeping rooms Treatment rooms Health-care center	6 10 10	80 80 80
15.	Hotels and Apartments	10	200
16.	Kitchen - Commercial	30	200
17.	Library Reading Rooms	50	50
18.	Locker Rooms	30	50
19.	Malls (See Section 404)	-	-
20.	Manufacturing Areas	30	200
21.	Mechanical Equipment Room	30	300
22.	Nurseries for Children (Day-Care)	6	50
23.	Offices	30	100
24.	School Shops and Vocational Rooms	50	50
25.	Skating Rinks	50	50 on the skating area; 15 on the deck26.
26.	Storage and Stock Rooms	30	300
27.	Stores - Retail Sales Rooms	50	30
28.	Swimming Pools	50	50 for the pool area; 15 on the deck
29.	Warehouses	30	500
30.	All Other	50	100

Access to, and egress from, buildings for persons with disabilities shall be provided as specified in Chapter 11.

For additional provisions on number of exits from Group H and I Occupancies and from rooms containing fuel-fired equipment or cellulose nitrate, see Sections 1018, 1019 and 1020 respectively.

<sup>&</sup>lt;sup>3</sup> This table shall not be used to determine working space requirements per person.

Occupant load based upon five persons for each alley including 15 feet (4572 mm) of runway.

#### Sec. 1101. Scope.

[§ 1101.2 is hereby amended as follows:]

1101.2 Design. The design and construction of accessible building elements shall be in accordance with this chapter and the Council of American Building Officials (CABO)/American National Standards Institute (ANSI) A117.1-1992, which is a part of this code as though set out at length herein. For a building to be considered to be accessible, it shall be designed and constructed to the minimum provisions of this chapter and CABO/ANSI A117.1, or in accordance with provisions of State of Arizona Attorney General Administrative Rule R10-3-401 through R-10-3-404<sup>1</sup>, whichever standard provides the greatest degree of accessibility for any given building element.

#### ARTICLE 4. THE ARIZONANS WITH DISABILITIES ACT

- **R10-3-401 Definitions:** Definitions of Arizonans with Disabilities Act ARS 41-1492 referencing to US Public Law 101-336 Americans with Disabilities Act (ADA).
- **R10-3-402** Nondiscrimination on the Basis of Disability by Specified Public Transportation: Requires public transportation services provided by a private entity to comply with ADA 36 CFR 1191.
- **R10-3-403** Nondiscrimination on the Basis of Disability by Public Entities: Requires public entities to comply with ADA 28 CFR 35.
- R10-3-404 Nondiscrimination on the Basis of Disability by Places of Public Accommodation and in Commercial Facilities: Requires private entities to comply with ADA 28 CFR 36 and its Appendix A, which is ADAAG (American with Disabilities Act Accessibility Guidelines).

# Sec. 1203. Light and ventilation in Group R Occupancies.

[§ 1203.1 is hereby amended as follows:]

**1203.1 General.** For purposes of determining the light and ventilation for Group R Occupancies required by this section, any room may be considered as a portion of an adjoining room when the common wall provides an opening of not less than one-tenth of the floor area of the interior room or 25 square feet (2.3 m²), whichever is greater. The required opening may be glazed provided not less than one-half of the required area is openable.

Exterior openings for natural light or ventilation required by this section shall open directly onto a street or public alley or a yard or court located on the same lot as the building.

**EXCEPTIONS:** 1. Required exterior openings may open into a roofed porch where the porch:

- 1.1 Abuts a public way, yard or court; and
- 1.2 Has a ceiling height of not less than 7 feet (2134 mm); and
- 1.3 Has the longer side at least 65 percent open and unobstructed.
- 2. Skylights.

The state of Arizona Attorney General Administrative Rules were adopted in the Arizona Administrative Code Register Supplement 96-3, Page 7, as supplement to Arizonans with Disabilities Act ARS 41-1492.

[§ 1203.3 is hereby amended as follows:]

**1203.3 Ventilation.** Guest rooms and habitable rooms within a dwelling unit or congregate residence shall be provided with natural ventilation by means of openable exterior openings with an area of not less than one twentieth of the floor area of such rooms with a minimum of 5 square feet (0.46 m<sup>2</sup>).

In lieu of required exterior openings for natural ventilation, a mechanical ventilating system may be provided. Such system shall be capable of providing two air changes per hour in all guest rooms, dormitories, habitable rooms and in public corridors. One fifth of the required air supply shall be taken from the outside.

Bathrooms, water closet compartments, laundry rooms and similar rooms shall be provided with natural ventilation by means of openable exterior openings with an area not less than one twentieth of the floor area of such rooms with a minimum of  $1\frac{1}{2}$  square feet (0.14 m<sup>2</sup>).

In lieu of required exterior openings for natural ventilation in bathrooms containing a bathtub or shower or combination thereof, laundry rooms, and similar rooms, a mechanical ventilation system connected directly to the outside capable of providing five air changes per hour shall be provided. Such systems shall be connected directly to the outside, and the point of discharge shall be at least 3 feet (914 mm) from any opening which allows air entry into occupied portions of the building. Bathrooms which contain only a water closet or lavatory or combination thereof, and similar rooms may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

#### Sec. 1402. Weather protection.

[§ 1402.4 is hereby repealed.]

#### Sec. 1502. Definitions.

[§ 1502 is hereby amended by amending the definition of wood shakes and wood shingles as follows:]

**Wood shakes** are tapered or non-tapered pieces of <u>Western red cedar, redwood or</u> other approved durable wood listed and labeled by an approved grading agency having a <u>service for inspection of materials at the factory</u>, and of the following four types:

- 1. Hand-split and resawn; tapered with one sawed and one split face; semi-split, tapered with partially sawn and split faces both sides, 15 inches (380 mm), 18 inches (455 mm) or 24 inches (610 mm) in length.
- 2. Taper-split; tapered with both split faces, 24 inches (610 mm) in length.
- 3. Straight-split; nontapered with both split faces, either 18 inches (455 mm) or 24 inches (610 mm) in length.
- 4. Taper-sawn sawn both sides edges sawn or split. Lengths 24 inches (610 mm) and longer.

For other approved durable wood, specifications and requirements of the listed product may modify the conditions specified herein.

Wood shakes (treated) are taper-sawn pieces of southern pine, black gum/sweet gum wood of random widths ranging from 4 to 8 inches (100 mm to 200 mm) and lengths of 18 inches (455 mm) or 24 inches (610 mm); treated in accordance with U.B.C. Standard No. 15-3; and listed and labeled by an approved grading agency having a service for inspection of materials at the factory. Maximum weather exposure shall comply with Table No. 15C, Wood Shakes.

Wood shingles are tapered pieces of Western red cedar, redwood or other approved durable wood listed and labeled by an approved grading agency having a service for inspection of materials at the factory. Wood shingles shall be of random widths ranging from 3 inches to 14 inches (75 mm to 356 mm) and in lengths of 16 inches (405 mm), 18 inches (455 mm) or 24 inches (610 mm). For other approved durable wood, specifications and requirements of the listed product may modify the conditions specified herein.

#### Sec. 1503. Roof-covering requirements.

[§ 1503 is hereby amended as follows:]

**1503 Roof covering requirements.** The roof covering on any structure regulated by this code shall be as specified in Table No. 15-A and as classified in Section 1504.

The roof-covering assembly includes the roof deck, underlayment, interlayment, insulation and covering which is assigned a roof-covering classification. For Types I, II-F.R., II One-hour and II-N construction, a roof-covering assembly containing a combustible roof deck is not permitted unless a combustible roof is specifically permitted by Chapters 3 or 6.

#### Sec. 1504. Roof-covering classification.

- [§ 1504.4 is hereby amended by adding Items 7 and 8 as follows:]
- 7. Any Class C roof covering. See Section 1504.3.
- 8. Any special purpose roof. See Section 1504.5

#### Sec. 1505. Attics: access, draft stops and ventilation.

[§ 1505.3 is hereby amended as follows:]

**1505.3 Ventilation.** Where determined necessary by the building official due to atmospheric or climatic conditions, enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain and snow. The net free ventilating area shall not be less than 1/150 of the area of the space ventilated.

**EXCEPTIONS:** 1. The area may be 1/300 of the area of the space ventilated provided 50 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents.

2. The area may be 1/300 of the area of the space ventilated provided a vapor retarder having a transmission rate not exceeding 1 perm [ $(5.7 \times 10^{-11} \text{ kg/(Pa's'm}^2)]$  is installed on the warm side of the attic insulation.

- 3. The area may be 1/300 of the area of the space ventilated for enclosed rafter spaces on roofed patio/porch covers of Group R occupancies.
- 4. Attic ventilation is not required for an enclosed rafter space formed where ceilings are applied directly to the underside of the roof rafters provided insulation is installed against the roof sheathing without an air space between the roof sheathing and the insulation, and a vapor retarder not exceeding 1 perm is installed on the room side of the insulation.

The openings shall be covered with corrosion-resistant metal mesh with mesh openings of 1/4 inch (6.4 mm) in dimension.

**EXCEPTION:** Alternative screening materials with not less than 1/8 inch (3.2 mm) openings may be used if the net free ventilating area of the individual vents is increased by 10% to offset the effect of clogging.

Smoke and heat venting shall be in accordance with Section 906.

#### Sec. 1506. Roof drainage.

[§ 1506.2 is hereby amended as follows:]

**1506.2 Roof drains and <u>roof scuppers</u>.** Unless roofs are sloped to drain over roof edges, roof drains <u>or roof scuppers</u> shall be installed at each low point of the roof <u>with the inlet or flow line located at or below each low point of the roof</u>.

Roof drains shall be sized and discharged in accordance with the Plumbing Code.

Roof scuppers shall have a minimum vertical dimension of 6 inches (152 mm) and a minimum width of 1/2 (12.7 mm) inch per 100 square feet (9.29 m²) of tributary area, but not less than 6 inches (152 mm).

Where downspouts are used, an overflow opening equal in size and shape to the roof scupper shall be provided in the downspout, with the bottom of the opening located between 0 and 2 inches (51 mm) above the bottom of the roof scupper.

[§ 1506.3 is hereby amended as follows:]

1506.3 Overflow drains and <u>overflow</u> scuppers. Where roof drains are required, overflow drains having the same size as the roof drains shall be installed with the inlet flow line located 2 inches (51 mm) above the low point of the roof, or overflow scuppers may be installed in adjacent parapet walls with the inlet flow line located 2 inches (51 mm) above the low point of the adjacent roof. <u>Overflow scuppers</u>, when used, shall have a minimum opening height of 6 inches (152 mm) and a minimum width of three times the required roof drain diameter, but not less than 6 inches (152 mm).

Overflow drains shall be connected to drain lines independent from the roof drains.

**EXCEPTION:** Overflow drains may be connected to the primary roof drainage system at a point not less than 10 feet (3048 mm) below the overflow drain elevation.

#### Sec. 1514. Cooling towers.

[§ 1514 is hereby added as follows:]

<u>1514 Cooling towers.</u> Cooling towers located more than 50 feet (15 240 mm) above the lowest level of Fire Department vehicle access shall be of non-combustible construction.

# Table 15-A -- Minimum roof classes.

[Table 15-A is hereby amended as follows:]

Table 15-A - Minimum Roof Classes

		TYPES OF CONSTRUCTION											
	I		II			II	IV V		V				
OCCUPANCY	F.R.	F.R.	1-HR	N	1-HR	N	H.T.	1-HR	N				
A-1	В	В											
A)2-2.1	В	В	В		В		В	В					
A-3	В	В	В	В	В	В	В	В	В				
A-4	В	В	В	В	В	В	В	В	В				
В	В	В	В	В	В	В	В	В	В				
Е	В	В	В	В	В	В	В	В	В				
F	В	В	В	В	В	В	В	В	В				
H-1	A	A	A	A									
H) 2-3-4-5-6-7	A	В	В	В	В	В	В	В	В				
I) 1.1-1.2-2	A	В	В		В		В	В					
I-3	A	В	В		В			В					
M	В	В	В	В	В	В	В	В	В				
R-1	В	В	В	В	В	В	В	В	В				
$R-3^{\frac{2}{2}}$	В	В	В	В	В	В	В	В	В				
S-1,S-3	В	В	В	В	В	В	В	В	В				
S-2, S-5	В	В	В	В	В	В	В	В	В				
S-4	В	В	В	В									
U	В	В	В	В	NR¹	NR¹	NR¹	NR¹	NR¹				

Unless otherwise required because of location as specified in Parts IV and V of this code, Group U, Division 1 roof coverings shall

A -- Class A roofing B -- Class B roofing

C -- Class C roof covering NR -- Nonrated roof coverings

N -- No requirements for fire resistance F.R. -- Fire resistive

H.T. -- Heavy timber

consist of not less than one layer of cap sheet, or built-up roofing consisting of two layers of felt and a surfacing material as specified in Section 1504.4, Item 1.

A single detached dwelling unit and its accessory structures may have a non-rated roof covering as specified in Section 1504.4.

#### Table 15-B-2 -- Wood shingle or shake application.

[Item 1 of Table 15-B-2 is hereby amended as follows:]

**Table 15-B-2 - Wood Shingle or Shake Application** 

1. Deck requirement	Shingles and shakes shall be applied to roofs with solid sheathing. Spaced sheathing is prohibited. Sheathing boards
	shall be not less than 1 inch by 4 inches (25 mm by 102 mm) nominal dimensions.
	Sheathing shall conform to Sections 2322.2 and 2326.12.9.

# Table 15-D-2. Clay or concrete roofing tile application interlocking tile with projecting anchor lugs - minimum roof slope 4 units vertical in 12 units horizontal (33.3% slope).

[Items 1 and 2 of Table 15-D-2 is hereby amended as follows:]

1. Deck requirements	Solid sheathing per Section 2322.2 and 2326.12.9. Spaced sheathing is prohibited.
2. Underlayment	One layer of heavy-duty felt or Type 30 felt lapped 2 inches (51 mm) horizontally and 6 inches (153 mm) vertically.

# Sec. 1602. Definitions.

[§ 1602 is hereby amended by adding the definition of balcony, exterior as follows:]

**Balcony, exterior** is an exterior floor system projecting from a structure and supported by that structure, with no additional independent supports.

[§ 1602 is hereby amended by adding the definition of deck as follows:]

**Deck** is an exterior floor system supported on at least two opposing sides by an adjoining structure and/or posts, piers, or other independent supports.

#### Sec. 1603. Design methods.

[§ 1603.3.5 is hereby amended as follows:]

**1603.3.5 Anchorage.** Anchorage of the roof to walls and columns, and of walls and columns to foundations, shall be provided to resist the uplift and sliding forces which result from the application of the prescribed forces. For additional requirements for masonry or concrete walls, see Section 1611.

Anchorage of the roof of Group R Occupancies shall be designed to withstand an uplift force equal to the difference of 110 percent of the design uplift load required by Division II Wind Design and the roof dead load.

#### Sec. 1609. Special design.

[§ 1609.5 is hereby repealed.]

#### Sec. 1614. Definitions.

[§ 1614 is hereby amended by amending the definition of partially enclosed structure or story as follows:]

**Partially enclosed structure or story** is a structure or story which has more than 15 percent of any windward projected area open and in which the area of opening on all other projected areas is less than half of that on the windward projection. <u>A residential garage shall be considered to be a partially enclosed structure regardless of the type of door assembly.</u>

#### Sec. 1616. Basic wind speed.

[§ 1616 is hereby amended as follows:]

The minimum basic wind speed for determining design wind pressure shall be <u>70 mph</u>.

# Sec. 1617. Exposure.

[§ 1617 is hereby amended as follows:]

**Exposure C** shall be assigned at each site for which a building or structure is to be designed.

#### Sec. 1626. Symbols and notations.

[Item Z of § 1626 is hereby amended as follows:]

Z = 0.075

#### Sec. 1627. Criteria selection.

[§ 1627.1 is hereby amended as follows:]

**1627.1 Basis for design.** The procedures and limitations for the design of structures shall be determined considering zoning, site characteristics, occupancy, configuration, structural system and height in accordance with this section. The minimum design seismic forces shall be those determined in accordance with the static lateral force procedure of Section 1628 except as modified by 1629.5.3 <u>Group R</u>, <u>Division 3</u>

Occupancies need not conform to the provisions of this section except where required by Section 2106.1.12.3.

[§ 1627.2 is hereby amended as follows:]

**1627.2 Seismic zones.** Except as provided in Subsection 1, all structures shall be designed and constructed to meet the requirements of Zone 2.

[§ 1627.8.1 is hereby amended as follows:]

**1627.8.1 General.** Any structure may be designed using the dynamic lateral force procedures of Section 1629 or the static lateral force procedure of 1628.

[§ 1627.8.2 is hereby repealed.]

[§ 1627.8.3 is hereby repealed.]

#### Sec. 1628. Minimum design lateral forces and related effects.

[§ 1628.7.2 is hereby amended as follows:]

**1628.7.2 Seismic zones 2. 3 and 4.** In Seismic Zones 2. 3 and 4, where a lateral load-resisting element is discontinuous, such as for vertical irregularity Type D in Table No. 16-L or plan irregularity Type D in Table No. 16-M, columns supporting such elements shall have the strength to resist the axial force resulting from the following load combinations, in addition to all other applicable load combinations:

$$1.0 DL + 0.8 LL + 3 (Rw/8)E$$

$$0.85 DL + 3 (Rw/8)E$$

- 1. The axial forces in such columns need not exceed the capacity of other elements of the structure to transfer such loads to the column.
- 2. Such columns shall be capable of carrying the above-described axial forces without exceeding the axial load strength of the column. For designs using working stress methods this capacity may be determined using an allowable stress increase of 1.7.
- 3. Such columns shall meet the following detailing or member limitations:

Chapter 19, Section 1921.4, for concrete, and Chapter 22, Section 2211.5, for steel in structures in Seismic Zones 3 and 4.

Chapter 19, Section 1921.8, for concrete, and Chapter 22, Division I and IX, special provisions for developing plastic hinges at ultimate loading, for steel in structures in Seismic Zone 2.

[§ 1628.9 is hereby amended as follows:]

**1628.9 P** Effects. The resulting member forces and moments and the story drifts induced by P-delta effects shall be considered in the evaluation of overall structural frame stability. P-delta need not be considered when the ratio of secondary moment to primary moment does not exceed 0.10; the ratio may be evaluated for any story as the product of the total dead, floor live load and snow load, as required in Section 1603.6 above the story times the seismic drift in that story divided by the product of the seismic shear in that story times the height of that story. In Seismic Zones  $\underline{2}$ ,  $\underline{3}$  and  $\underline{4}$ , P-delta need not be considered where the story draft ratio does not exceed  $\underline{0.02/R_w}$ .

#### Table 16-I -- Seismic zone factor Z.

[Table 16-I is hereby amended as follows:]

Z = 0.075 per Section 1626 as amended.

#### Table 16-N. Structural systems.

[Description No. 4 of Item 3 of Table 16-N is hereby amended as follows:]

- 4. Ordinary moment-resisting frames (OMRF).
- a. Steel  $\frac{8}{}$
- b. Concrete <sup>7</sup>

[Footnote 8 of Table 16-N is hereby added as follows:]

 $\frac{8}{8}$ R<sub>w</sub> = 8 in Zone 2

#### Table 16-0. Horizontal force factor.

[Components No.5, 6 and 7 of Item 2 of Table 16-O are hereby repealed.]

[Equipment No. 2 of Item 3 of Table 16-O is hereby repealed.]

#### Figure 16-1. Minimum basic wind speeds in miles per hour (x 1.61 for km/h).

[Figure 16-1 is hereby repealed.]

### Figure 16-2. Seismic zone map of the United States.

[Figure 16-2 is hereby repealed.]

# Sec. 1701. Special inspections.

[Item 5.1 of § 1701.5 is hereby amended by adding Exception 3 as follows:]

3. Non-structural welding and structural welding when the design stress is 50% or less of the allowable stress.

[Item 5.3 of § 1701.5 is hereby amended by adding Exception 2 as follows:]

2. Non-structural welding and structural welding when the design stress is 50% or less of the allowable stress.

# Sec. 1806. Footings.

[§ 1806.4.5 is hereby repealed.]

#### Table 18-1-D. Foundations for stud bearing walls - minimum requirements.

[Table 18-1-D is hereby amended as follows:]

Table 18-1-D -- Foundations for stud bearing walls - minimum requirements  $^{1, 2, 3}$ 

NUMBER OF STORIES	THICKNESS OF FOUNDATION WALL (Inches)		WIDTH OF FOOTING (Inches)	THICKNESS OF FOOTING (Inches)	DEPTH OF FOUNDATION BELOW UNDISTURBED NATURAL GROUND (Inches)
	x 25.4 for mm				
	UNIT				
	CONCRETE MASONRY			x 25.4 for mn	n
1	6	6	12	6	12
2	8 8		15	7	18
3	10	10	18	8	24

Where unusual conditions or frost conditions are found, footings and foundations shall be as required in Section 1806.1.

# Sec. 1921. Reinforced concrete structures resisting forces induced by earthquake motions.

[§ 1921.8.5.3 is amended as follows:]

The ground under the floor may be excavated to the elevation of the top of the footing.

Foundations may support a roof in addition to the stipulated number of floors. Foundations supporting roofs only shall be as required for supporting one floor.

**1921.8.5.3.** Except for columns restrained on four sides by beams or slabs of approximately equal depth, column ties at not less than twice the vertical spacing s<sub>o</sub> shall be provided through the beam-column joint.

# Sec. 2106. General design requirements.

[Item 2 of § 2106.1.12.3 is hereby amended by adding Exceptions 1 through 4 as follows:]

**EXCEPTIONS:** 1. The reinforcing requirements of Subsection 6. may be used for one-story Group R, Division 3 Occupancies.

- 2. One story Group R, Division 3 Occupancies may be designed in accordance with the provisions of Chapter 16 when substantiated by plans and calculations prepared by an architect or engineer.
- 3. The Building Code Advisory Board of Appeals may approve drawings incorporating details of construction methods which comply with the provisions set forth in Exception 2. above. Said drawing, when approved by the Board, shall be kept on file in the Development Services Department/Building Safety Division.
  - 4. Unburned Clay Masonry complying with Section 2109.9.1 as amended.

[Item 5 of § 2106.1.12.3 is hereby amended as follows:]

5. The following materials shall not be used as part of the vertical or lateral load-resisting systems: Type O mortar, plastic cement, nonload-bearing masonry units and glass block.

[§ 2106.1.12.3 is hereby amended by adding Items 6 and 7 as follows:]

6. Partially Reinforced Masonry. Partially reinforced masonry shall be designed as unreinforced masonry, except that reinforced areas or elements may be considered as resisting stresses in accordance with the design criteria specified in Sections 2106 and 2107, provided such elements fully comply with the design and construction requirements for reinforced masonry except as herein noted. Only Type M or S mortar shall be used.

The minimum area of reinforcement required in Section 2106.1.12.3 shall not apply to partially reinforced masonry walls. Maximum spacing of vertical reinforcement in partially reinforced masonry walls shall be 8 feet (2438 mm). Reinforcement shall be provided on each side of each opening and at each corner of all walls. Horizontal reinforcement not less than 0.2 square inch in area shall be provided at the top of footings, at the bottom and top of wall openings, at roof and floor levels and at the top of parapet walls.

**EXCEPTION:** Horizontal joint reinforcing consisting of not less than two #9 gage wires may be provided at the top and bottom of all openings and extending 24 inches (610 mm) beyond the sides of the opening provided structural steel lintels are used to support all vertical loads imposed on the opening.

<u>Vertical reinforcement at corners, ends of wall, jambs of door openings and jambs of windows with masonry sill heights less than 24 inches (610 mm) above the floor shall be dowelled into the foundation.</u>

7. Minimum Dimensions (1) Bearing Walls. The nominal thickness of reinforced masonry bearing walls shall not be less than 6 inches (152 mm) and the ratio of unsupported height to thickness or unsupported length to

thickness (but not both) shall not exceed 25 except as specified in Section 2108.2.4.4

(2) Columns. The least nominal dimension of a reinforced masonry column shall be 12 inches (305 mm) except that if the allowable stress are reduced to one-half the value given in Section 2107, the nominal dimension shall be not less than 8 inches 200 mm).

# Sec. 2107. Working stress design of masonry.

[§ 2107.1.4 is hereby amended by adding Item 4 as follows:]

4. Mortar or grout shall not be considered to resist axial tension.

#### Sec. 2109. Empirical design of masonry.

[§ 2109.9 is hereby amended as follows:]

- 2109.9.1 General. The use of unreinforced masonry of unburned clay/adobe shall be limited to buildings of Group R, Division 3 and Group U Occupancies of no more than one (1) story in height, unless design and structural calculations are submitted by a registered architect or engineer and approved by the Building Code Advisory Board.
- 2109.9.2 Walls. The height of every laterally unsupported wall of unburned clay/adobe shall be not more than ten (10) times the thickness of such walls. Exterior walls, which are laterally supported with those supports located no more than twenty-four (24) feet apart, are allowed a minimum thickness of sixteen (16) inches. Interior walls are allowed a minimum thickness of twelve inches (12). Designed walls may be a minimum thickness of ten inches (10) provided the h/t ratio of ten (10) is maintained.
- 2109.9.3 Compressive strength. The unit(s) shall have an average compressive strength of three hundred (300) pounds per square inch when tested in accordance with ASTM C67. One sample out of five may have a compressive strength of not less than two hundred fifty (250) pounds per square inch.
- <u>2109.9.4 Stresses.</u> All masonry of unburned clay units shall be so constructed that the unit stresses do not exceed those set forth in Table No. 21-M. Bolt values shall not exceed those set forth in Table No. 21-L.
- 2109.9.5 Modulus of rupture. The unit(s) shall average fifty (50) pounds per square inch in modulus of rupture when tested according to the following procedure:
  - 1. A cured unit shall be laid over (cylindrical) supports two inches (2) in diameter, located two inches (2) from each end, and extending across the full width of the unit.
  - 2. A cylinder two inches (2) in diameter shall be laid mid-way between and parallel to the supports.
  - 3. Load shall be applied to the cylinder at the rate of five hundred (500) pounds per minute until rupture occurs.

- 4. The modulus of rupture is equal to  $3WL/2Bd^2$ 
  - W Load of rupture
  - L Distance between supports
  - B Width of brick
  - d Thickness of brick

2109.9.6 Soil. The soil used shall contain not less than twenty-five (25) percent and not more than forty-five (45) percent of material passing a No. 200-mesh sieve. The soil shall contain sufficient clay to bind the particles together and shall not contain more than 0.2 percent of water soluble salts.

#### 2109.9.7 Classes of Unburned Clay/Adobe.

- 1. Treated Unburned Clay/Adobe. The term treated is defined to mean unburned clay/adobe made of soil to which certain admixtures are added in the manufacturing process in order to limit its water absorption in order for it to comply with paragraph 2109.9.11 below. Exterior walls constructed of treated unburned clay/adobe require no additional protection. Stucco is not required.
- 2. Untreated Unburned Clay/Adobe. Untreated unburned clay/adobe is adobe which does not meet the water absorption specifications of Section 2109.9.11. This shall apply even if some water absorption protective agent has been added. The determination as to whether an unburned clay/adobe is treated or untreated is to test for compliance with Section 2109.9.11. Exterior walls of untreated unburned clay/adobe are allowed but must comply with Section 2109.9.16 requiring Portland cement plaster applied to the outside. Use of untreated unburned clay/adobe is prohibited within four inches (4) above the finished floor grade, unless an approved vapor barrier is used between the wall and the stem. Treated adobe may be used for the first four inches (4) above finished floor grade, without a vapor barrier.
- 3. Other Types of Unburned Clay/Adobe. This section applies to construction with all types of unburned clay/adobe including rammed earth and poured earth adobe. These types of unburned clay/adobe shall meet the specifications in this section or similar specifications which are submitted to the building official and approved by the Building Code Advisory Board.
- 2109.9.8 Mortar. Where treated unburned clay/adobe is required, mortar shall be treated or may be Type M or S. Where unburned clay/adobe is allowed to be untreated, any adobe mortar may be used or Type M, S or N.

Mortar bedding joints shall be full SLUSH type, with partially open head joints allowable if surface is to be plastered. All joints shall be bonded (overlapped) a minimum of four inches (4).

- 2109.9.9 Sampling. Each of the tests prescribed in this section shall be applied to five sample units selected at random from each 5,000 bricks to be used.
- <u>2109.9.10 Moisture content.</u> The moisture content of the unit shall be not more than four (4) percent by weight.

- 2109.9.11 Absorption. A dried four inch (4) cube cut from a sample unit shall absorb not more than two and one-half percent moisture by weight when placed upon a constantly water saturated porous surface for seven (7) days.
- 2109.9.12 Shrinkage cracks. No units shall contain more than three shrinkage cracks, and no shrinkage crack shall exceed two inches (2) in length or one-eighth inch (1/8) in width.
- 2109.9.13 Use. No adobe shall be laid in the wall for at least three (3) weeks after making.
- 2109.9.14 Foundations. Unburned clay/adobe shall not be used for foundation or basement walls. All unburned clay/adobe walls, except as noted under Group U Buildings, shall have a continuous concrete footing at least eight inches (8) thick and not less than two inches (2) wider on each side than the foundation stem walls above. All foundation walls which support unburned clay/adobe shall extend to an elevation not less than eight inches (8) above the finished grade.

Foundation walls shall be at least as thick as the exterior wall as specified in Section 2109.9.2. Where stem wall insulation is used, the stem wall width may be two inches (2) smaller than the width of the unburned clay/adobe wall it supports.

- 2109.9.15 Bond beam. All exterior unburned clay/adobe walls shall have a continuous concrete bond beam with a minimum width of ten inches (10) and a minimum depth of ten inches (10). All concrete bond beams shall be reinforced with a minimum of two (2) No. 4 reinforcing rods.
- 2109.9.16 Plastering. All untreated unburned clay/adobe shall have all exterior walls plastered on the outside with Portland cement plaster with a minimum thickness three-fourths inches (3/4) in accordance with Chapter 25. Metal wire mesh, minimum 20 gauge by one inch (1) opening, shall be securely attached to the exterior unburned clay/adobe wall surface by nails or staples with a minimum penetration of one and one-half inches (1-1/2). Such mesh fasteners shall have a maximum spacing of sixteen inches (16) from each other. All wood surfaces in contact with unburned clay/adobe walls shall be treated with wood preservative, or otherwise protected, before the application of wire mesh.
- 2109.9.17 Piers. A minimum twenty-eight inch (28) wall section shall be required between openings and openings shall not be placed within twenty-eight inches (28) of exterior corners.
- 2109.9.18 Partitions of wood. Partitions of wood shall be constructed as specified in Chapter 23. Wood partitions shall be nailed to nailing blocks laid up on the unburned clay/adobe wall or bolted through the unburned clay/adobe wall for the height of the partition, with one-half inch (1/2) diameter bolts at twenty-four inches (24) on center with large washers or plates, or other approved methods.
- 2909.9.19 Wood lintels. Wood lintels designed to support all imposed loads are permitted up to a maximum span of six feet (6') and shall be a minimum twelve inch (12) bearing.
- 2109.9.20 Alternate methods. Alternate methods to those provided in this section (Section 2109.9.1) may be approved pursuant to Section 104.2.8.

#### Sec. 2110. Glass masonry.

[§ 2110.6 is hereby amended by adding an Exception as follows:]

**EXCEPTION:** A single glass block wall panel not exceeding 48 inches (1219 mm) in height or width.

# Table 21-D. Specified compressive strength of masonry, f'<sub>m</sub> (psi) based on specifying the compressive strength of masonry units.

[Footnote 3 of Table 21-D is hereby amended as follows:]

# Sec. 2212. Steel structures resisting forces induced by earthquake motions in seismic zones 1 and 2.

[§ 2212.10 is hereby amended as follows:]

**2212.10 Stud Wall Systems.** Stud wall systems may be used to resist the specified seismic forces in buildings not over five stories in height. <u>These</u> systems shall comply with Section 2211.11.

#### Sec. 2317. Decay and termite protection.

[§ 2317.5 is hereby amended as follows:]

2317.5 Columns and posts. located on concrete or masonry floors or decks <u>may be of any species of wood permitted by this code</u>. <u>Columns and posts</u> located on individual concrete or masonry piers shall not be located nearer than <u>six inches</u> (152 mm) to earth unless the columns or posts are of approved wood of natural resistance to decay or treated wood.

# Sec. 2322. Sheathing

[§ 2322.2 is hereby amended as follows:]

2322.2 Structural roof sheathing. Structural roof sheathing shall be designed in accordance with the general provisions of this code and the special provisions in this section. Structural roof sheathing shall be designed to support all loads specified in this code and shall be capable of supporting concentrated loads of not less than 300 pounds (1334 N) without failure. The concentrated load shall be applied by a loaded disc, 3 inches (76 mm) or smaller in diameter. Structural roof sheathing shall meet the following requirement:

Deflection under uniform design live and dead load limited to 1/180 of the span between supporting rafters or beams. and 1/240 under live load only.

Roof sheathing conforming to the provisions of Tables 23-I-R-1 and 23-I-R-2 or 23-I-S-1 and 23-I-S-2 or 23-I-S-3 shall be deemed to meet the requirements of this subsection.

Wood structural panel roof sheathing shall be bonded with exterior glue.

<sup>&</sup>lt;sup>3</sup> Mortar for unit masonry, proportion specification as specified in Table No. 21-A.

#### Sec. 2326. Conventional light-frame construction provisions.

[§ 2326.9.2 is hereby amended as follows:]

**2326.9.2 Wood structural panels.** Where used as structural subflooring, wood structural panels shall be as set forth in Tables 23-I-S-1 and 23-I-S-2. Wood structural panel combination subfloor-underlayment shall have maximum spans as set forth in Table 23-I-T-1.

When wood structural panel floors are glued to joists with an adhesive in accordance with the adhesive manufacturer's directions, fasteners may be spaced a maximum of 12 inches (305 mm) on center at all supports.

Wood structural panels used as structural subflooring or combination subfloorunderlayment shall be bonded with exterior glue.

[§ 2326.12.8 is hereby amended as follows:]

**2326.12.8 Blocking.** Roof rafters and ceiling joists shall be supported laterally to prevent rotation and lateral displacement when required by Section 2306.7. Roof trusses shall be supported laterally to prevent rotation and lateral displacement <u>in accordance</u> with the requirements of Section 2306.7 based upon the ratio of the depth to thickness at points of bearing unless an alternate method is provided in accordance with accepted engineering practice.

[§ 2326.12.9 is hereby amended as follows:]

**2326.12.9 Roof sheathing.** Roof sheathing shall be in accordance with Tables 23-I-S-1 and 23-I-S-2 for wood structural panels, Tables 23-I-R-1 and 25-I-R-2 for lumber or Table 23-I-S-3 for particleboard.

Joints in lumber sheathing shall occur over supports unless approved end-matched lumber is used, in which case each piece shall bear on at least two supports.

Wood structural panels used as roof sheathing shall be bonded with exterior glue.

# Table 23-I-W -- Braced wall panels.

[Table 23-I-W is hereby amended as follows:]

Table 23-I-W -- Braced Wall Panels<sup>1</sup>

Table 25-1-vv Draceu vvan Faneis										
		CONSTRUCTION METHOD <sup>2,3</sup>								
SEISMIC ZONE	CONDITION	1	2	3	4	5	6	7	8	BRACED PANEL LOCATION AND LENGTH <sup>4</sup>
0,1 and 2	One story, top of two or three story	X	X	X	X	X	X	X	X	Each end and not more than 25 feet (7620 mm) on center
	First story of two story or second story of three story	X	X	X	X	X	X	X	X	
	First story of three story		X	X	X	$X^5$	X	X	X	
3 and 4	One story, top of two or three story		X	X	X	X	X	X	X	Each end and not more than 25 feet (7620 mm) on center
	First story of two story or second of three story		X	X	X	$X^5$	X	X	X	Each end and not more than 25 feet (7620 mm) on center but not less than 25% of building length <sup>6</sup>
	First story of three story		X	X	X	$X^5$	X	X	X	Each end and not more than 25 feet (7620 mm) on center but not less than 40% of building length 6

This table specifies minimum requirements for braced panes which form interior or exterior braced wall lines.

See Section 2326.11.3 for full description.

See Section 2326.11.4 for alternate braced panel requirement.

Building length is the dimension parallel to the braced wall length.

Gypsum wallboard applied to supports at 16 inches (406 mm) on center.

The required lengths shall be doubled for gypsum board applied to only one face of a braced wall panel.

#### Sec. 2406. Safety glazing.

[Item 5 of § 2406.4 is hereby amended as follows:]

5. Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers, where the bottom exposed edge of the glazing is less than 60 inches (1525 mm) above a standing surface or drain inlet.

[Item 9.2 of § 2406.4 is hereby amended as follows:]

9.2 The glazing is within 5 feet (1525 mm) of a swimming pool or spa water's edge.

#### Sec. 2603. Light-transmitting plastics.

[Item 6 of § 2603.7.1 is hereby amended by amending Exception 2 as follows:]

2. Multiple Skylights with a combined area not exceeding the limits set forth in Section 2603.7.1, Item 4.

#### Sec. 2902. Number of fixtures.

[§ 2902.2 is hereby amended as follows:]

**2902.2 Group A Occupancies.** In Group A Occupancies, at least one lavatory <u>and one water closet</u> for each sex shall be <u>accessible to the public and one additional lavatory for each two water closets, urinals or combination thereof in excess of three</u> at an approved location. At lease one drinking fountain shall be provided for each floor level in an approved location.

**EXCEPTION:** A drinking fountain need not be provided in a drinking or dining establishment.

For other requirements on water closets, see Section 806 and 2903.

#### Sec. 2903. Alternate number of fixtures.

[§ 2903 is hereby repealed.]

#### Sec. 3102. Chimneys, fireplaces and barbecues.

[§ 3102.3.7 is hereby amended as follows:]

3102.3.7 Cleanouts. Cleanout openings shall be provided within 6 inches (152 mm) of the base of every masonry chimney. If the base is located less than 6 inches (152 mm) below the lowest inlet, the inlet shall serve as the cleanout, as required by the Mechanical Code.

[§ 3102.3.8 is hereby amended as follows:]

3102.3.8 Spark arrester. Spark arresters shall be provided on chimneys serving incinerators as required by the Mechanical Code. All incinerator chimneys shall terminate in a substantially constructed spark arrester. The net free area of the spark arrester shall not be less than four times the net free area of the outlet of the chimney.

The spark arrester screen shall have heat and corrosion resistance equivalent to 12-gauge wire, 19-gauge galvanized wire or 24-gauge stainless steel. Openings shall not permit the passage of spheres having a diameter larger than 1/2 inch (12.7 mm)and shall not block the passage of spheres having a diameter of less than 3/8 inch (9.5 mm).

[§ 3102.4.3 is hereby amended as follows:]

3102.4.3 Reinforcing and seismic anchorage. Unless a specific design is provided, every masonry or concrete chimney in Seismic Zones Nos. 2, 3 and 4 shall be reinforced with not less than four No. 4 steel reinforcing bars conforming to the provisions of Chapter 21 or 19 of this code. The bars shall extend the full height of the chimney and shall be spliced in accordance with the applicable requirements of Chapters 21 and 19. In masonry chimneys the vertical bars shall have a minimum cover of 1/2 inch (13 mm) of grout or mortar. The bars shall be tied horizontally at 18-inch (457 mm) intervals with not less than 1/4-inch-diameter (6.4 mm) steel ties. The slope of the inclined portion of the offset in vertical bars shall not exceed 2 units vertical to 1 unit horizontal (200% slope). Two ties shall also be placed at each bend in vertical bars. Where the width of the chimney exceeds 40 inches (1016 mm), two additional No. 4 vertical bars shall be provided for each additional flue incorporated in the chimney or for each additional 40 inches (1016 mm)in width or fraction thereof.

In Seismic Zones Nos. 2, 3 and 4, all masonry and concrete chimneys shall be anchored at each floor or ceiling line more than 6 feet (1829 mm) above grade, except when constructed completely within the exterior walls of the building. Anchorage shall consist of two 3/16-inch by 1-inch (4.8 mm by 25 mm) steel straps cast at least 12 inches (305 mm) into the chimney with a 180-degree bend with a 6-inch (152 mm) extension around the vertical reinforcing bars in the outer face of the chimney.

Each strap shall be fastened to the structural framework of the building with two 1/2-inch-diameter (12.7 mm) bolts per strap. Where the joists do not head into the chimney, the anchor strap shall be connected to 2-inch by 4-inch (51 mm by 102 mm) ties crossing a minimum of four joists. The ties shall be connected to each joist with two 16d nails. Metal chimneys shall be anchored at each joist with two 1-1/2-inch by 1/8-inch (38 mm by 3.2 mm) metal straps looped around the outside of the chimney installations and nailed with six 8d nails per strap to the roof or ceiling framing.

[§ 3102.7.14 is hereby added as follows:]

**3102.7.14 Nonconforming fireplaces.** Imitation and other fireplaces not conforming to the other requirements of this section shall not exceed 6 inches (152 mm) in depth.

#### Sec. 3202. Projection into alleys.

[§ 3202 is hereby amended as follows:]

No part of any structure or any appendage thereto shall project into any alley, except as specifically authorized by an encroachment permit issued by the City Engineer.

#### Sec. 3203. Space below sidewalk.

[§ 3203 is hereby amended as follows:]

The space adjoining a building below a sidewalk on public right-of-way may be used and occupied in connection with the building for any purpose not inconsistent with this code or other laws or ordinances regulating the use and occupancy of such spaces, <u>subject</u> to the conditions of an encroachment permit issued by the City Engineer.

#### Sec. 3204. Balconies, sun-control devices and appendages.

[§ 3204 is hereby amended as follows:]

Oriel windows, balconies, sun-control devices, unroofed porches, cornices, belt courses, and appendages such as water tables, sills, capitals, bases, and architectural projections, may project over the public right-of-way, a distance as determined by <u>an encroachment permit issued by the City Engineer</u>.

#### Sec. 3205. Marquees.

[§ 3205.1 is hereby amended as follows:]

**3205.1 General.** For the purpose of this section, a marquee shall include any object or decoration attached to or a part of said marquee.

The maximum projection over the public right-of-way, horizontal clearance from the curb, and height above the public right-of-way, shall be subject to the conditions of an encroachment permit issued by the City Engineer.

[§ 3205.2 is hereby repealed.]

[§ 3205.3 is hereby repealed.]

[§ 3205.4 is hereby repealed.]

#### Sec. 3206. Awnings.

[§ 3206.3 is hereby amended as follows:]

3206.3 Projection and clearances. Except as specifically authorized by an encroachment permit issued by the City Engineer, awnings may extend over public right-of-way, but no portion shall extend nearer than 2 feet (610 mm) to the back of curb measured horizontally, and all portions of any awning shall be at least 8 feet (2438 mm) above any public right-of-way.

**EXCEPTION:** Any valance attached to an awning shall not project above the roof of the awning at the point of attachment and shall not extend more than 12 inches (305 mm) below the roof of the awning at the point of attachment; provided the extension is not less than 7 feet (2134 mm) in height above the public way.

[§ 3206.4 is hereby repealed.]

#### Sec. 3207. Doors.

[§ 3207 is hereby amended as follows:]

Power-operated doors and their guide rails and other doors either fully opened or when opening shall not project <u>into the public right-of-way</u>, except as specifically <u>authorized by the City Engineer</u>.

#### Sec. 3208. Pedestrian walkways.

[§ 3208 is hereby added as follows:]

No pedestrian walkway shall project over a public way except as specifically authorized by an encroachment permit issued by the City Engineer.

#### Sec. 3402. Maintenance.

[§ 3402 is hereby amended as follows:]

All buildings or structures, both existing and new, and all parts thereof shall be maintained in a safe and sanitary condition. All devices or safeguards <u>required by the code at the time of construction</u>, <u>alteration</u>, <u>moving or repair of the building or structure</u> shall be maintained in conformance with <u>said Code</u>. To determine compliance with this subsection, the building official may cause any structure to be reinspected.

#### Sec. 3403. Additions, alterations or repairs.

[§ 3403.2 is hereby amended as follows:]

**3403.2 When allowed.** Additions, alterations or repairs may be made to any building or structure without requiring the existing building or structure to comply with the requirements of this code, provided the addition, alteration or repair conforms to that required for a new building or structure and provided that the additions, alterations or repairs within a 12-month period do not exceed fifty percent of the value of the existing building or structure. When additions, alterations or repairs within any 12 month period exceed fifty percent of the value of an existing building or structure, such building or structure shall be made to conform to the requirements for new buildings or structures.

Additions, alterations or repairs shall not cause any existing building or structure to become unsafe or overloaded. Any building so altered, which involves a change in use or occupancy, shall comply with Section 3405. Any building plus new additions shall not exceed the height, number of stories and area specified for new buildings.

[§ 3403.5 is hereby amended as follows:]

- **3403.5 Historic buildings.** Repairs, alterations and additions necessary for the preservation, restoration, rehabilitation or continued use of a building or structure may be made without conformance to all of the requirements of this code when authorized by the <u>Building Code Advisory Board of Appeals</u>, provided:
  - 1. The building or structure has been designated by official action of the legally constituted authority of this jurisdiction as having special historical or architectural significance.

- 2. Any unsafe conditions as described in this code are corrected.
- 3. The restored building or structure will be no more hazardous based on life safety, fire safety and sanitation than the existing building.

[§ 3403.6 is hereby added as follows:]

3403.6 Repairs, roof coverings. Not more than 50 percent of the roof covering of any building or structure shall be replaced in any 12 month period unless the new roof covering is made to conform to the requirements of this code as amended herein for new buildings or structures.

#### **Appendix Chapter 3. Use of occupancy.**

[Division II, Section 329, of Appendix Chapter 3 is hereby amended by adding an Exception as follows:]

**EXCEPTION:** Exterior walls of agricultural buildings not exceeding 1 story and 3,000 sq. ft (279 m<sup>2</sup>) need not be protected when located not less than 5 feet (1,524 mm) from the property line.

[Division III of Appendix Chapter 3 is hereby repealed.]

[Division IV, Section 333.3, of Appendix Chapter 3 is hereby amended by amending the definition of Group R, Division 4 Occupancies as follows:]

**Group R, Division 4 Occupancies** shall be residential group care facilities for ambulatory, non-restrained persons who may have a mental or physical impairment (each accommodating more than five and not more than 16 clients or residents, excluding staff) or Adult Care Homes (each accommodating more than 5 and not more than 10 persons).

[Division IV, Section 341 of Appendix Chapter 3 is hereby amended as follows:]

An approved fire alarm system shall be provided in Group R, Division 4 Occupancies in accordance with the Fire Code.

#### APPENDIX VOLUME I

#### Appendix Chapter 4. Special use of occupancy.

[Division I of Appendix Chapter 4 is hereby repealed.]

#### **Appendix Chapter 9.** Basement pipe inlets.

[Appendix Chapter 9 is hereby repealed.]

# Appendix Chapter 10. Building security.

[§ 1023 is hereby amended as follows:]

# SECTION 1023 - BUILDING SECURITY (2)

[§ 1023 is hereby added as follows:]

Building security shall be in accordance with the 1994 Uniform Building Security Code with certain amendments thereto.

#### Sec. 1025. Scope.

[§ 1025 is hereby amended as follows:]

The provisions of this chapter shall apply to openings into dwelling units within apartments of Group R, Division 1 Occupancies and Group R, Division 3 Occupancies and to openings between attached garages and dwelling units. Door openings, <u>including vehicular access doors</u> in enclosed attached garages shall be in accordance with the provisions of this chapter.

**EXCEPTIONS:** 1. An opening in an exterior wall when all portions of such openings are more than 12 feet (3658 mm) vertically or 6 feet (1829 mm) horizontally from an accessible surface of any adjoining yard, court, passageway, public way, walk, breezeway, patio, planter, porch or similar area.

- 2. An opening in an exterior wall when all portions of such openings are more than 12 feet (3658 mm) vertically or 6 feet (1829 mm) horizontally from the surface of any adjoining roof, balcony, landing, stair tread, platform or similar structure or when any portion of such surface is itself more than 12 feet (3658 mm) above an accessible surface.
- 3. Any opening in a roof when all portions of such roof are more than 12 feet (3658 m) above an accessible surface.
- 4. Openings when the small dimension is 6 inches (152 mm) or less, provided that the closest edge of the opening is at least 36 inches (914 mm) from the locking device of the door or window assembly.
- 5. Openings protected by required fire door assemblies having a fire-endurance rating of not less than 45 minutes.

#### Sec. 1029. Swinging doors.

[§ 1029.1 is hereby amended as follows:]

**1029.1 General.** Swinging doors regulated by this chapter required for security shall comply with the U.B.C Standard 10-5, Part I. Doors in pairs shall be tested in pairs.

#### **EXCEPTIONS** 1. Wood flush-type door 1-3/4 inches thick minimum.

- 2. Wood panel-type door 1-3/4 inches thick minimum with all panels fabricated from material not less than 3/8 inch in thickness; provided all shaped portions of the panels are not less than 1/4 inch thick.
- 3. Ferrous metal doors of solid or hollow core construction with surfaces not less than 24 gauge in thickness.

4. Other metal doors with surfaces not less than the equivalent of 16 gauge sheet metal (0.06 inch) in thickness.

[§ 1029.4 is hereby amended as follows:]

**1029.4 Locking hardware.** Single swinging doors and the active leaf of doors in pairs shall be equipped with an approved exterior key operating deadbolt which has been tested in accordance with U.B.C. Standard 10-5, Part I. See Chapter 10 of the Building Code for requirements on door operation for exiting.

**EXCEPTIONS** 1. Strike deadbolts with a minimum throw of 1 inch and an embedment of not less than 5/8 inch into the holding device receiving the projected bolt.

- 2. Hook shape or expanding lug deadbolts with a minimum throw of 3/4 inch.
- 3. Deadbolts or locks which automatically activate two or more deadbolts with an embedment of not less than 1/2 inch into the holding device receiving the projected bolts.
- 4. Manually operated hardened bolts at the top and bottom of the leaf, with an embedment not less than 1/2 inch into the device receiving the projected bolt may be used when not prohibited by Chapter 10.

Cylinder guards shall be installed on all mortise or rim-type cylinder locks whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping tools.

# Sec. 1031. Windows.

[§ 1031 is hereby amended as follows:]

Window assemblies which are designed to be openable and which are regulated by this chapter shall comply with the U.B.C. Standard 10-6, unless such windows are protected by approved metal bars, screens or grilles. Louvered windows regulated by this chapter shall be protected by approved metal bars, or grilles. See also Building Code Section 310.4.

#### Sec. 1033. Upward acting doors.

[§ 1033 is hereby added as follows:]

Upward acting doors shall be secured with a cylinder lock, padlock with a hardened steel shackle and hardened steel hasp, metal slide bar, bolt or equivalent device, unless secured by electric power operation.

Cylinder guards shall be installed on all mortise or rim-type cylinder locks whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping tools.

### Appendix Chapter 12. Interior environment.

[Division I of Appendix Chapter 12 is repealed.]

#### Appendix Chapter 13. Energy conservation in new building construction.

[Appendix Chapter 13 is hereby repealed.]

#### Appendix Chapter 15. Reroofing.

[Appendix Chapter 15 is hereby repealed.]

# Appendix Chapter 29. Minimum plumbing fixtures.

[Appendix Chapter 29 is hereby repealed.]

# Appendix Chapter 30. Elevators, dumbwaiters, escalators and moving walks.

[Appendix Chapter 30 is hereby repealed.]

#### Appendix Chapter 31. Special construction.

[Division I of Appendix Chapter 31 is hereby repealed.]

# Appendix Chapter 33. Excavation and Grading.

[Table 33-A – Grading Plan review Fees, is amended as follows.]

# **Table No. 33-A – Grading Plan Review Fees** (5)

50 cubic yards or less	No Fee
51 to 100 cubic yards	\$15.00
101 to 1,000 cubic yards	\$22.50
1,001 to 10,000 cubic yards	\$30.00

10,001 to 100,000 cubic yards - \$30.00 for the first 10,000 cubic yards, plus \$15.00 for each additional 10,000 cubic yards or fraction thereof.

100,001 to 200,000 cubic yards - \$165.00 for the first 100,000 cubic yards, plus \$9.00 for each additional 10,000 cubic yards or fraction thereof.

200,001 cubic yards or more - \$225.00 for the first 200,000 cubic yards, plus \$4.50 for each additional 10,000 cubic yards or fraction thereof.

#### **Other Fees:**

Additional plan review required by changes, additions or revisions	
to approved plans	\$30.00 per hour
(minimum charge – one-half hour)	

[Table 33-B – Grading Permit Fees. is amended as follows:]

# **Table No. 33-B – Grading Permit Fees** (5)

50 cubic yards or less	\$15.00
51 to 100 cubic yards	\$22.50

101 to 1,000 cubic yards - \$22.50 for the first 100 cubic yards, plus \$10.50 for each additional 100 cubic yards or fraction thereof

1001 to 10,000 cubic yards - \$117.00 for the first 1,000 cubic yards, plus \$9.00 for each additional 1,000 cubic yards or fraction thereof.

10,001 to 100,000 cubic yards - \$198.00 for the first 10,000 cubic yards, plus \$40.50 for each additional 10,000 cubic yards or fraction thereof.

100,001 cubic yards or more - \$562.50 for the first 100,000 cubic yards, plus \$22.50 for each additional 10,000 cubic yards or fraction thereof.

# Other Inspections and Fees:

- 2. Reinspection fee assessed under provisions of Section 108.8 .......... \$30.00 each

The fee for a grading permit authorizing additional work to that under a valid permit shall be the difference between the fee paid for the original permit and the fee shown for the entire project.

#### Appendix Chapter 34. Existing structures.

[Division I and II of Appendix Chapter 34 are hereby repealed.]

#### APPENDIX VOLUME II

# Appendix Chapter 16. Structural forces.

[Appendix Chapter 16 is hereby repealed.]

#### Appendix Chapter 18. Waterproofing and dampproofing foundations.

[Appendix Chapter 18 is hereby repealed.]

# Appendix Chapter 19. Protection of residential concrete exposed to freezing and thawing.

[Appendix Chapter 19 is hereby repealed.]

#### Appendix Chapter 21. Prescriptive masonry construction in high-wind areas.

[Appendix Chapter 21 is hereby repealed.]

#### Appendix Chapter 23. Conventional light-frame construction in high-wind areas.

[Appendix Chapter 23 is hereby repealed.]

# **REFERENCES**

- (1) Ordinance 97.40 Effective 11-01-97
- (2) Ordinance 97.41 Effective 11-01-97
- (3) Ordinance 99.07 Effective 05-15-99
- (4) Ordinance 2001.09 Effective 04-29-01
- (5) Resolution 2001.17 Effective 07-01-01
- (**6**) Ordinance 2003.24 Effective 08-15-03
- (**7**) Ordinance 2004.25 Effective 07-10-04